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THE HEADQUARTERS OF THE MINING INDUSTRY.

Visitors find here files of a great number of papers from the mining districts of this and other countries, and books of reference which can be consulted for information on any question in which they may be interested. They can have their letters addressed in care of "The Engineering and Mining Journal," P. O. Box 1833, New York, and will find in the headquarters every convenience for correspondence.

The supply of iron ores obtainable for the Eastern blast furnaces from Spain and Cuba has not been sufficient to meet the immediate demand, and we have noted the arrival of several large cargoes from Bona, in Algeria. A considerable amount of this Algerian ore was brought to the United States 10 or 12 years ago, but since then the trade has been entirely suspended. That it should now be renewed shows how active is the demand for ores of a quality suitable for Bessemer pig.

The Lowell Institute in Boston through the Massachusetts Institute of Technology is doing an excellent work in providing for the use of students through the winter courses of technical lectures which are open without charge to all who have the desire and intention to follow them up thoroughly, and is thus enabling many to pursue their studies far beyond the point which those of limited means would be able to attain. The work done in this direction is worthy of commendation, since it is precisely in the direction where it is especially needed and likely to be especially beneficial. An account of a number of the courses is given in another column. Among them we have to note especially one by Prof. H. O. Hofman, who is so well known to our readers, on the "Metallurgy of Copper." Nearly all the courses have a direct practical bearing.

The returns of the Treasury Department continue to show an increase in the value of our exports of manufactures. For the nine months of the current year ending with September these amounted to $145,793,500, showing an increase of about 10 per cent. over the previous year. The proportion of manufactures to the total exports for the nine months was 26·7 per cent. against 23·7 per cent. in 1894. Machinery, hardware and various other manufactures of iron and steel form a large part of these exports. The results shown by these returns indicate that the increase over previous years, as shown in 1894, which was assumed by some to be due simply to the fact that manufacturers were forced to sell abroad, being unable to find a market at home, was really the beginning of a definite increase in our foreign trade, since the gain has been not only sustained but enlarged during all the months of the present year, when the home demand has been greater and prices much higher. Many of our manufacturers seem to realize this, and steps are being taken to cultivate trade, especially in South America and in the East. If concerted action can be arranged in many branches of business the effect will be excellent, as we have often pointed out.

The usual annual rumor of a "combination" among soft coal interests has made its appearance. Attempts have been made at various times by bituminous coal producers who ship to the Atlantic seaboard to reach some sort of an understanding by which prices might be "regulated." Recently a meeting of coal men was held in Philadelphia at which the subject was discussed, and the interests present manifested not only their willingness, but, we are told, even their anxiety that some plan might be agreed upon by which prices might be made more profitable, or, as they would have us believe, less unprofitable than they have ruled during the past season. The "pool" will embrace those regions of Pennsylvania, Maryland, Virginia and West Virginia, the greater part of whose product is shipped to tidewater for a market. We understand that a committee has been appointed to devise a "practical plan" and doubtless some sort of a scheme will be suggested. As has been shown in our market reports, the most important point this year is the support given to the movement by the railroad companies, which declare that freight rates have been too low this season and that they must be raised in 1896. The fact that the miners have been threatening to strike unless a higher mining rate is paid next spring also makes producers anxious to arrive at some new working basis, as these increased costs of labor and transportation cannot be paid unless the selling price of bituminous coal advances materially. Only a few days ago a large steamer contract was placed at a price said to be $2.17 alongside, New York harbor. The margin of profit, if there be any on such a figure, must be very slight. However, it does not appear likely at this writing that success will crown the efforts of the soft coal men, and probably this latest attempt will meet the fate of previous endeavors. Until we know what sort of a plan is proposed by the committee it is useless to discuss the attempt seriously.

In an article in this column in our last issue reference was made to the war indemnity to be paid to Japan by China and its effect on the silver market. As there has been some uncertainty as to the amount, it will be of interest to give a definite statement of this as finally settled and the

periods at which it is payable. The total amount is 200,000,000 Kaiping taels, and the exchange value of the tael is fixed at 80 cents in London, where the payments are to be made. The following table shows the amounts of the different installments in taels and in our own currency:

	Taels.	Dollars.
1. November 8th, 1895	50,000,000	$40,000,000
2. May 8th, 1896	50,000,000	40,000,000
3. May 8th, 1897	16,666,667	13,333,334
4. May 8th, 1898	16,666,667	13,333,333
5. May 8th, 1899	16,666,666	13,333,333
6. May 8th, 1900	16,666,667	13,333,334
7. May 8th, 1901	16,666,667	13,333,333
8. May 8th, 1902	16,666,666	13,333,333
Total	200,000,000	$160,000,000

Payment has already been made in London, in gold, of the first installment of $40,000,000, and a further payment has been made of the special indemnity of $25,000,000 (not included in the table) which was awarded to Japan in return for the immediate evacuation of Chinese territory by her troops. The Japanese Government has therefore $65,000,000 in gold standing to its credit in London. It may be added that China is required to pay interest at the rate of 5 per cent. yearly on the deferred installments.

It is announced that the Japanese Government has decided to appropriate 130,000,000 yen ($54,340,000) of the indemnity money for the increase of its navy. A large part of this, as well as other sums for arms and war material, will be spent in Europe. Probably at least one-third of the total will remain there: but the payments for new ships, etc., will be spread over several years, and no very large amounts will be needed immediately.

BY-PRODUCT SAVING COKE OVENS.

For years past the "Engineering and Mining Journal" has called the attention of our coke manufacturers to the wasteful and barbarous methods in general use here, with bee-hive ovens, wasteful in everything and possessing but a single redeeming feature, namely, that they made good coke with most coals. This fact was greatly exaggerated, and when more rational methods of coking were proposed they were met at once with the unsupported assertion that the bee-hive made better coke than any of the by-product saving ovens, and this assertion was emphasized by referring to the numerous statements to that effect by one of our best known coke experts. Nevertheless "the world do move," and the long successful experience in several European countries with improved ovens has at last secured attention here and the high priest of the bee-hive oven, the expert who did more than any other man in this country to retard the adoption of improved ovens, has been converted and now advocates the introduction of the improved ovens and by-product saving plants which should have been—and perhaps except for him would have been—adopted here years ago.

We are thankful that the light is dispelling the darkness of the past and we congratulate all, whatever their former opinions and teachings may have been, who are now aiding in bringing about the adoption of these much needed improvements.

Some time ago a lot of 2,000 tons of Connellsville coal was sent to Syracuse, N. Y., and was there coked in the Semet-Solvay ovens, with by product-saving plant, under the direction of Mr. John Fulton. The coke produced was sent to the Buffalo Furnace Company and was used in their furnaces in a thorough test with the best selected Connellsville bee-hive oven coke, and we understand the experts' report states that pound for pound the Solvay coke was fully equal in efficiency to the Connellsville bee-hive coke. This at once disproves the old contention in favor of the bee-hive coke in iron making.

In economy there is no comparison between the two systems. At the Solvay Process Company's works, at Syracuse, the Solvay ovens, described and illustrated on another page, have been in use for some years, using chiefly Morris Run coal, which in the bee-hive oven yielded about 60 per cent. of coke. Though the coal contains 80 per cent. of fixed carbon and ash the Solvay ovens yield in regular work no less than 82 per cent. of good coke and 3 per cent. of "breeze"; that is, the yield in coke exceeds the total fixed carbon plus ash, some of the volatile carbon evidently being condensed in the coking.

The by-products are 45 pounds of tar worth 18 cents per ton of Morris Run coal; 15 pounds sulphate of ammonia, and 12,000 to 15,000 cubic feet of 22-candle power gas. The ovens are heated by producer gas, of which 160,000cubic feet is obtained per ton of coal. The by-products more than pay for the coal and the running of the producers.

With Connellsville coke the Solvay ovens produced 15 to 20 per cent. more coke than is obtained by the bee-hive ovens, and gave about 21 pounds of sulphate of ammonia and 100 pounds of tar per ton of coal.

It is true the Solvay ovens are more expensive to build than bee-hives; their cost is a little less than $1,600 per oven and $1,400 per oven for the by-product plant, but on the other hand it takes but from 18 to 24 hours to coke a charge of from five to six tons, so that the cost of the ovens per ton of coke produced is probably no greater than with bee-hives. The terms asked by the company for the use of its patents is, we believe, one-half the profits on the by-products for 15 years, and this is, we believe, less, and the system appears, so far as we can judge from the data now before us, more advantageous than the other by-product saving plants now being offered to the public.

We shall give the results of work with each, as tests of value are made.

Efforts are being made to unite in a combination all the by-product-saving coke oven patents. We sincerely hope these efforts will not succeed, but that each will stand upon its own merits, and that the coke industry will have the benefit of free choice and moderate royalties. The most important question of the near future will be the marketing of the by-products. But even should some of these decline very greatly in value, the greater yield of coke, the utilization of the fuel gas, which can be pumped through pipes to the nearest cities or industrial works, and the value of the by-products at whatever they may bring, beyond any question render the use of improved by-product-saving coke ovens far more advantageous than the old bee-hives.

A QUARTER OF A CENTURY'S FLUCTUATIONS IN MINING STOCKS.

We are now preparing a table of the fluctuations for the past 25 years of such mining stocks as may be still considered to have an actual existence and vulue.

Our aim in doing so is not to discourage investments in mining property, as mining when carried out on a business and commercial basis is as safe as, and more profitable than any enterprise in a manufacturing or mercantile line. The object of this table is simply to show the enormous fluctuations that mining stocks are subject to in a period of inflation and speculation, and thereafter the absolutely certain reaction which takes place when the excitement has passed and the stocks are valued from a common sense point of view according to the net returns they earn.

The opportuneness of referring to the matter at present, is in the increasing speculation in the gold stocks of the Cripple Creek district, Colorado, the symptoms of this speculation spreading all over the country, and the desire on our part that such speculation should be kept within reasonable bounds and not react like a boomerang on legitimate mining enterprise.

These eras of speculation have come in waves, the first of which may be dated from 1870 and was confined to the mines of the Comstock Lode, reaching its culmination, for the time, in 1872, the advance in price in thirteen of the leading mines on the Comstock Lode, showing an increase of market value of no less than $80,594,000. A reaction took place after this advance in June, 1874; the same thirteen mines showed a depreciation on the stock market of $13,835,800, the respective total values in 1870, 1872 and 1874 being $4,746,000, $85,340,000 (June, 1874), and $41,504,200. Later on there was a great renewal of speculation, and the market value of these same stocks in December, 1874, was $166,223,600, showing an increase in price from the quotations in 1870 of the astounding amount of $161,497,600. Up to this date December, 1874, the total assessments amounted to $6,666,000, and the total dividends to $26,156,000.

The foregoing is an illustration of the fluctuations between 1870 and 1875, after which latter date the Comstock stocks gradually fell in price, with an occasional reaction and a spirit which encouraged the speculators to hope for a return to the old-time prices. As an instance of how rapidly prices changed, it is recorded that in twelve hours in February, 1872, the price of shares in the Savage mine advanced $100 per share, and in thirty days California jumped from $85 to $585; and to show the reverse of the picture, Belcher, on May 8th, 1872, fell $300 in 24 hours. The present quoted value of the above-mentioned thirteen leading Comstock mines has dwindled from $166,263,600 in December, 1874, to $970,800 to-day.

The next real speculation in mining property and stocks was started by the discovery and rapid development of lead carbonate and high grade silver ores at Leadville, Colo., which took place in 1878. One of the most attractive features for speculators and which, no doubt, caused much money to be seriously invested and still more to be wasted on mere paper speculation, was the result of H. A. W. Tabor's "grub stake" to George Hook and August Riche. Hook was a poor shoemaker and Riche was "dead broke." After sinking 26 feet they struck carbonates on the Little Pittsburg and within a few months Tabor & Riche bought out Hook's one-third interest in that and an adjoining claim called the Dives for $90,000 and within four months from the date of striking ore the net returns from ore sales were $105,000. By the end of the year the Little Pittsburg Consolidated, which included two other claims besides the two original ones, was turning out ore monthly of the value of $250,000.

The next period in the history of this mine (which carried along with it many minor ventures successfully in the stock market) was when it was placed on the eastern market in October, 1879, with a capital of 200,000 shares, which sold at $30 per share or $6,000,000 for the mine. Up to this date the published amount of dividends paid was $950,000. Early in 1880 the boom was over and in one day Little Pittsburg dropped from $29 to $11 a share, and with it all Leadville stocks declined rapidly in sympathy. By June of the same year, although Little Pittsburg had paid in dividends $1,350,000, it was selling at $6 a share, or $1,200,000 for the mine, and at the same date the Chrysolite, which had divided $1,100,000 in profits, was selling at $20 a share, or $4,000,000 for the mine.

All the foregoing figures prove only how difficult it is to be wise in time and how little reason or sense there is in any "boom" price. It is a matter of sentiment and of fashion, which is more clearly indicated by the present movement being limited at present to Cripple Creek—a most worthy field for enterprise and a most meritorious camp, but Leadville, even to-day, and other camps in Colorado are just as much worthy of investment (or of speculation if people are determined to speculate) as Cripple Creek.

To show what the possibilities are from legitimate mining, we will quote just two instances from the Lake Superior district in copper mining. The Quincy copper mine has a capital of $200,000 paid in, and has paid in dividends $7,690,000. It has for many years paid from $200,000 to $450,000 a year, or from 100 per cent. to 225 per cent. a year on the money invested.

The Calumet & Hecla mine, with a paid in capital of $1.250,000, has now divided profits to the amount of $43,850,000, and pays regularly about $2,000,000, or 150 per cent. a year on the capital invested.

NEW PUBLICATIONS.

EIGHTH SPECIAL REPORT OF THE COMMISSIONER OF LABOR: THE HOUSING OF THE WORKING PEOPLE. Prepared under the direction of Carroll D. Wright, Commissioner, by E. R. L. Gould. Washington; Government Printing Office. Pages 462; illustrated.

This monograph presents the results of an inquiry undertaken by the United States Bureau of Labor into the improvements begun and made in the sanitary and general conditions of dwelling houses for persons of limited means in cities. The larger part is taken up by descriptions of the new "model" tenement houses built in recent years in some of the larger European cities. Some space is given also to American cities, chiefly New York and Brooklyn. It presents a mass of information as to sanitary and other work for the improvement of dwellings of the collective or tenement class, and also with regard to sanitary laws and regulations in cities.

STAND-PIPE ACCIDENTS AND FAILURES IN THE UNITED STATES. By William D. Pence. New York; "Engineering News" Publishing Company. Pages 196; illustrated. Price $1.

On the principle that we learn by our mistakes, this book ought to be of much service to engineers of water-works and others who have to study the question of water supply. In many plants for the supply of towns, and occasionally also for mines, the stand-pipe or water tower is an essential feature, and its elements of strength and weakness must be studied. In this book we find a critical account of all the cases of failure of such structures concerning which information is attainable, and wherever possible accounts of the causes are given. The most frequent of these seems to have been structural weakness, due to under-estimation of the strains to which a stand-pipe is exposed. This fault is gradually being corrected as more experience is gained with such structures, and a study of this book will much assist the engineer.

POOR'S DIRECTORY OF RAILWAY OFFICIALS AND MANUAL OF AMERICAN STREET RAILWAYS. TENTH YEARLY EDITION, 1895. New York; H. V. & H. W. Poor. Pages 74 and 616. Price $3.

With this issue of this well-known manual many improvements have been made in form and matter. Among these a comprehensive table of dividends paid by railroad, traction and industrial corporations during a period of eight and one-half years, the date of close of fiscal year, date when dividends are paid, when declared, time of closing transfer book and where payable. Following this is a table showing the time and place of holding annual meetings of all leading railroad companies and the time of closing transfer books before meeting with the name and address of the registrars of stock and transfer agents of each. Of railroad financial statistics two new tables are presented, one showing for a series of years the mileage owned and operated, capital accounts, passenger and freight statistics, earnings and income accounts of the leading railroads in the United States, and the other showing the monthly gross earnings of the same lines for several years past.

The information presented in reference to street railroads includes a list of the officials of each company in the United States and Canada, statistics of mileage, equipment, gauge, weight and kind of rail, capitalization, etc. The statistics of the street railroads are this year presented in tabular form, in which, it is believed, this information is especially valuable for ready reference, particularly in view of the great changes that are now taking place in this class of enterprises. In the introduction a summary of the mileage, capitalization, etc., is presented.

The total length of the street railroad lines in the United States is 13,176 miles, an increase of 3,514 miles over those in operation in 1891. Of this total 409 miles are operated with steam dummies, 10,238 by electric power, 579 by cable and 1,950 by animal traction. The equipment includes 30,857 passenger cars, 12,563 motor cars, 2,607 dummies and 45,353 horses. The rapid substitutions of electric traction for animal power may be judged by the fact that since 1891 the number of horses employed in the street railroad service has declined nearly 145,000, or about 71%. The capitalization of companies owning 12,798 miles of the total is shown to be $520,745,823 stock and $367,694,477 bonds, an average of $40,691 per mile of stock and $28,333 per mile of bonds, equal in the aggregate to $69,024 per mile of stock and bonds as against an average $56,611 per mile for steam railroads. The higher capitalization is largely due to the greater cost of equipment and partly, also, to the very high figure at which many new electric lines have been placed.

BOOKS RECEIVED.

In sending books for notice, will publishers, for their own sake and for that of book buyers, give the retail price? These notices do not supersede review on another page of the Journal.

Anatomy of a Railroad Report. By Thomas F. Woodlock, New York; United States Book Company. Pages 72. Price 50 cents.

Problems in the Use and Adjustment of Engineering Instruments. By Walter Loring Webb. New York; John Wiley & Sons. Pages 64. Price $1.

Queensland. Annual Report of the Under Secretary for Mines for the Year 1894. Brisbane, Australia, Government Printer. Pages 186; with maps.

Elementary Principles of Mechanics. Vol III.—Kinetics. By A. Jay Du Bois. New York; John Wiley & Sons. Pages 296; illustrated by diagrams. Price $3.50.

Geological Survey of New Jersey: Annual Report of the State Geologist for the Year 1894. John C. Smock, State Geologist. Trenton, N. J.; Printed for the Survey. Pages 304; with map, plates and illustrations.

CORRESPONDENCE.

We invite correspondence upon matters of interest to the industries of mining and metallurgy. Communications should invariably be accompanied with the name and address of the writer. Initials only will be published when so requested.
Letters should be addressed to the MANAGING EDITOR.
We do not hold ourselves responsible for the opinions expressed by correspondents

An Oregon Electric Transmission Plant.

EDITOR ENGINEERING AND MINING JOURNAL:

Sir: In the description of the long distance power transmission plant at Portland, Ore., in your "Journal" of November 2d, an error occurred which I desire to correct and shall feel greatly obliged to you if you will make the correction in your next issue. I said in the article, "The four-wire system is worked at 1,000 volts between wires and by means of feeder regulators a variation of 4% in either direction is covered."

This should read: "The four-wire system is worked at 133 volts between any two wires and by means of feeder regulators a variation of 7½ in either direction is covered."

J. MCGHIE.

NEW YORK, Nov. 23, 1895.

Separation and Treatment of Lead Matte at the Blast Furnace.

EDITOR ENGINEERING AND MINING JOURNAL:

Sir: In my article in your issue of August 10th, 1895, upon the "Separation of Matte at the Blast Furnace" I mentioned the Rhodes separating furnace used at the Arkansas Valley Smelting Works at Leadville. In so doing I wish to refer to it as the method now so successfully used there. As a matter of fact Dr. M. W. Iles, of the Globe Smelting and Refining Company, of Denver, had devised and patented, some three years before, the use of the reverberatory furnace in connection with the separation of matte and slag. While the Leadville furnace has been worked up, as respects detail and proportion, into a successful furnace, still the principle, as already stated, has been covered in the patents of Dr. Iles, numbered 494,570 and 494,571.

SABINAS, MEXICO, Oct. 24, 1895. L. S. AUSTIN.

"The Mineral Industry" Vol. III.

EDITOR ENGINEERING AND MINING JOURNAL:

Sir: I am more than pleased with Volume III. of the "Mineral Industry." It supplies a want long felt by the economic geologist, and I trust it will meet with the liberal patronage it deserves. T. C. HOPKINS.

INDIANAPOLIS, Ind., Sept. 8, 1895.

EDITOR ENGINEERING AND MINING JOURNAL:

Sir: We are to-day in receipt of the third volume of the "Mineral Industry." I am very much pleased to add to our library so valuable an encyclopedia of the mineral world.

C. W. HUNT,
President C. W. Hunt Company, Machinery Manufacturers.

NEW YORK, Aug. 16, 1895.

EDITOR ENGINEERING AND MINING JOURNAL:

Sir: We beg to acknowledge receipt of Volume III. of your "Mineral Industry." These volumes have come to be looked for with the keenest expectation and interest by the profession.

H. ENGELMANN,
Superintendent Ore Department, Matthiessen & Hegeler Zinc Company.

LA SALLE, Ill., Aug. 20, 1895.

EDITOR ENGINEERING AND MINING JOURNAL:

Sir: We think the third annual volume of the "Mineral Industry," if possible, is in advance of those you have hitherto published, and we take pleasure in testifying our appreciation of the valuable information contained therein.

CASTNER & CURRAN,
General Agents Pocahontas Coal.

PHILADELPHIA, Pa., Aug. 26, 1895.

EDITOR ENGINEERING AND MINING JOURNAL:

Sir: We note with interest the announcement that the third volume of the "Mineral Industry" is out. We could not get along without it, and consider it the most valuable statistical work which is published.

BILLINGS, CLAPP & CO.,
Manufacturing Chemists.

BOSTON, Mass., Aug. 16, 1895.

Mineral Resources of Newfoundland.—According to a letter from Judge Prowse, the historian of the island, recently published, besides the well-known copper mines at Tilt Cove and elsewhere, iron is found in Newfoundland in great abundance. A deposit at Belle Isle, about 12 miles from St. John's, is now being worked by a Nova Scotia syndicate with a yield of nearly 60% of metal. Near St. George's Bay there is still larger iron ore deposit, which has been graphically described as a whole mountain of iron. Asbestos exists in large quantities near the railway line at Labrador; borings for petroleum are being now made, with good prospects. Lead and other minerals are known to exist in paying quantities. All of these industries will be vitalized by the recent coal discoveries.

THE SEMET-SOLVAY COKE OVEN.

The accompanying illustration shows a section and some details of the Semet-Solvay coke oven, for the recovery of by-products. The general principle on which this oven is constructed is that of the continuous recuperation of heat, and in practice excellent results have been obtained with it.

In general arrangement the ovens are grouped together, the combustion gases being led from the side flues of the ovens through the bottom flue into a main flue, and passing from thence through the boilers, into the chimneys. The coke is pushed out of the ovens by means of two steam rams, which are removed from one oven to another by an endless chain running along the ovens, driven by a capstan placed in the engine-house. This arrangement permits the working of all the ovens with one single ram in case of break-downs. These steam rams receive their supply of steam from the boilers by means of a pipe line placed along the ovens, which is connected with the rams by movable elbow joint pipes.

The gases disengaged from the coal during the coking process, pass first into a hydraulic main put up on each set of ovens. From there they are led through wrought iron pipes to the condensers, whence they are drawn through the exhausters, and forced through the washers, back to the ovens. The peculiar construction of the hydraulic main obliges the gases to bubble through a small depth of water, whereby the cooling of the gases is greatly accelerated, and the formation of hard tar is prevented. The condensers are double jacketed, with continuous water circulation.

The flues in which the combustion of the cooled and purified gases takes place, and which, in other systems, are placed in the brick walls of the ovens, are here quite independent of them, and can, consequently, be renewed (which may be necessary after a few years) or repaired without touching the brickwork itself. For this purpose the flues are made of retorts with thin sides fitting one into the other and forming a complete and tight circuit. In this way a very solid construction is obtained, with very thin sides toward the coking chamber, which is favorable to the transmission of heat. Experience has shown that this arrangement permits a rapid coking of the coal, and consequently a large production per oven. Besides this the number of joints between the hollow tiles being reduced to a minimum and fitting into one another, possible leaks of gas between the flues and the coking chamber are also reduced to a minimum, and the yield in by-products is so much larger.

The dimensions inside the ovens are as follows: Length, 30 ft.; breadth, 1 ft. 2 in. on the side of the steam ram and 1 ft. 3 in. on the other side; height, 5 ft. 8 in. The brick walls are two bricks thick, or 16 in., and the thin sides of the tiles or retorts 3 in. The arrangement of having heating flues entirely independent of the brick walls and arches of the ovens makes repairs much easier and less costly than in ordinary ovens, even if they were more frequent than they actually are. In fact, the ordinary ovens have to be altogether pulled down and reconstructed after about 10 years working, whereas with the Semet-Solvay system it is sufficient to replace the independent side flues, which does not cost more than $100 per oven. The ovens can be repaired one after the other when required by putting out two ovens only, one on each side. Tiles now in use at Havre, in Belgium, have already lasted four years.

In these ovens it has been sought to avoid all causes of loss of heat in order to obtain the most favorable results from the combustion of the gases, and an even distribution of heat in all parts of the oven, by which means there is a quick and regular coking of the coal. For this purpose the brickwork over the bridges has been increased to a thickness of 4 ft. The cast-iron doors of the ovens are protected against the weather by wrought iron doors, which also prevent the cooling of the outside ends of the ovens.

The heating arrangement is shown in the drawing. Part of the gas is introduced in the upper range of hollow tiles on the side of the steam ram, and, passing successively through the intermediate and lower ranges, the gas descends to the flue under the floor of the oven. Another part of the gas is introduced on the opposite side into the middle range. The object of this division of the gases is to avoid overheating certain points and to obtain a better distribution of heat. The air needed for the combustion of the gas is admitted close to the first gas inlet, and is previously heated to a temperature of 392° to 572° F., by the brickwork under the floors of the ovens, in the following way: Beneath the flues under the floors are channels through which the air, drawn by the chimneys, is made to pass before entering the upper range of hollow tiles where the first introduction of gas takes place.

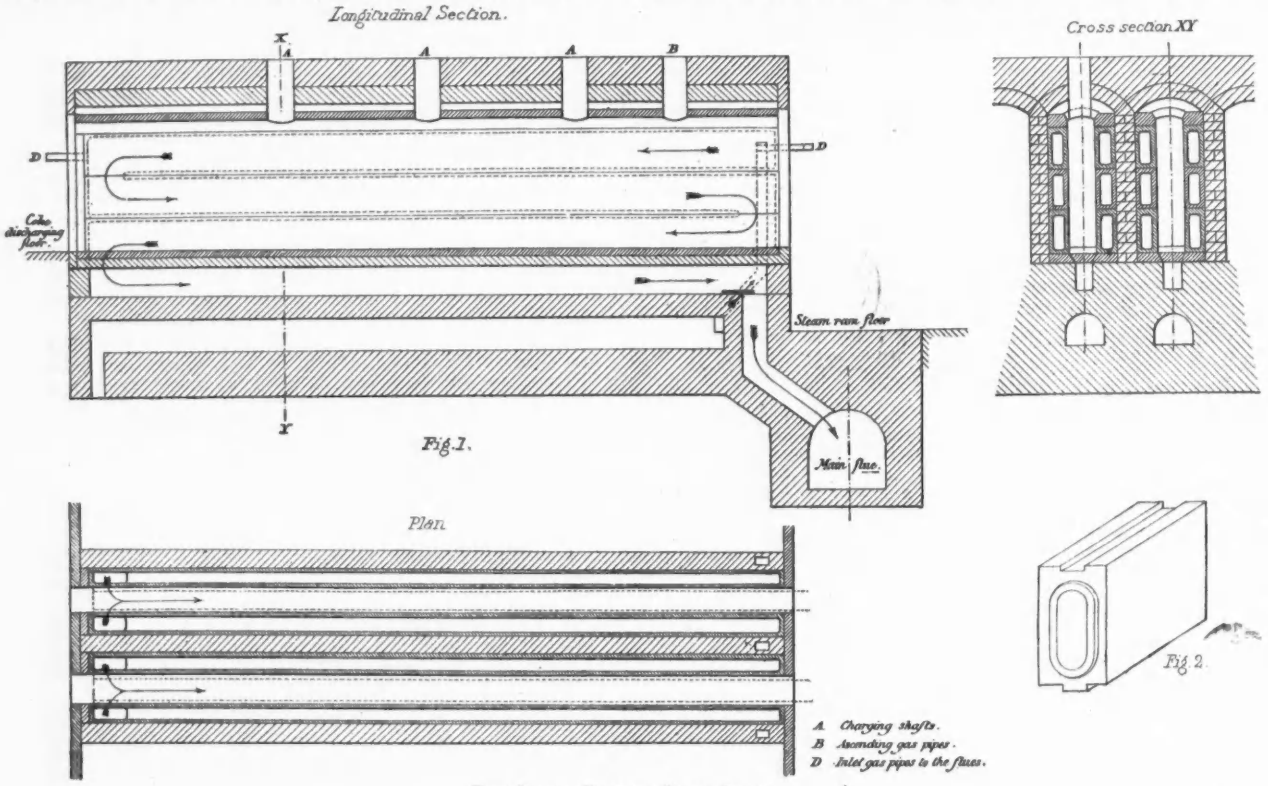
The combustion of the gases in these ovens is so well managed that, without having any direct heating with coal, not more than one-half of the gas obtained by the distillation is required for heating the ovens, even when the coal only contains from 16 to 17% of volatile substances. The fireplaces under the floors of the ovens, which have been so far the necessary complement of ovens with recovery of by-products, could therefore be entirely done away with.

In consequence of the large excess of gas at disposal and the method of regulating the combustion of the gases, this is up to the present the only system of oven which permits the exact regulation of the temperature of the ovens, and its maintenance at the desired point according to the nature of the coal to be distilled. At the same time the coking is exceedingly regular, as the amount of heat at disposal always allows the regulation of the ovens according to circumstances.

Every ingress of air into the ovens has been carefully avoided. The doors are designed in such a way as to enable an easy and efficacious luting. All the other openings, such as the charging shafts and the cleaning holes in the ascending gas pipes, are closed by covers with faced joints, maintained in place by springs, thus avoiding any further luting. The coke coming out of the oven does not show the slightest trace of combustion, and thus proves that the oven is thoroughly air-tight.

The gas enters the heating flues through openings adjusted in such a way that each oxen receives the same quantity of gas. Dampers between each oven and the main flue are set so as to give an equal draught in all the ovens. This makes the working very regular; the different sets of ovens are regulated by the pressure of the heating gas in the distributing pipes, which pressure can be maintained at the desired figure by means of a valve through which the gas passes, and by dampers at the foot of the chimneys. The temperature of the burnt gases at the bottom of the chimneys is hardly 392° F., while the ovens themselves work at a very high temperature.

Some notes as to the results obtained in practice with these ovens will be found in another column.



THE SEMET SOLVAY COKE OVEN.

A Fast German Steamer.—German papers announce that the North German Lloyd has let a contract to the Schichau yard at Elbing for a new passenger steamer, which is intended to be the fastest steamer on the North Atlantic, and to be very nearly as large as the noted "Lucania" and "Campania" of the Cunard Line. The builders will guarantee a speed on trial trip 22 knots an hour, and a continuous sea-speed in favorable weather of 21 knots an hour. The company received plans from two English and two German firms, and those of Schichau received the preference. At this yard some torpedo boats and other small vessels of extraordinary speed have been built, but no fast steamers as large as that now proposed.

PRESCOTT AS A MINING CENTER.

Written for the Engineering and Mining Journal by Dr. Theo. B. Comstock.

Prescott, Arizona, has for many years been regarded as a most favorably situated town for conducting mining business, owing to its peculiar relations to the numerous districts surrounding it. During the period or intense silver mining in Arizona, and while the Indians were troublesome, this place was less readily accessible than now and prospecting over the adjacent mountains was desultory and superficial. The building of the Santa Fe, Prescott & Phœnix Railroad, from Ash Fork, on the Atlantic & Pacific Railroad, to Phœnix. has given remarkable impetus to the development of the gold ve ns of the region, which are numerous, and, in many cases, prove to be very rich.

The "country," chiefly made up of granitic and metamorphic rocks, with occasional dykes, is of that typical character which indicates strong and persistent veins of the old fashioned style. Over a large portion of the area the volcanics have not obscured the underlying structure and the slates and schists are upturned at a very high angle. In these last the veins are frequently blind at surface, rendering prospecting somewhat difficult; but the effects of erosion are such as to afford many good exposures in the cross-gulches, and the "float" gives often more tangible evidence of the location of the veins than would be available under other circumstances.

In my last article in the "Journal" much importance was attached to the east-west trend as the gold-bearing axis in a large portion of Arizona. This feature is locally destroyed in much of what may be styled the "Prescott zone," where the majority of the rich veins trend nearly north-south. Cross-veins of the later northwest-southeast trend also traverse the district, but there is a large but well-defined area in which the laws laid down for southern Arizona will not hold. There appears to have been a center of uplift, not yet accurately mapped, toward which the local axes converge, or from which these radiate, but occupying a restricted area. But viewed from the standpoint of a Prescott miner, who overlooks the distant general area, this tract is the type of the region, instead of the local exception. It is not many miles to the country where the east-west axes become prominent.

As yet the writer has not enough minor data at hand to determine important factors in the accumulation of the ore bodies, and in many districts the development is not sufficient to formulate rules relating to the distribution of riches. Some general hints can be given concerning the qualities of ore which run high in gold, but surprising exceptions occur in occasional instances. It is no uncommon thing for veins which ordinarily carry enough free gold in massive sulphurets to pay well for milling before concentration, to exhibit "bonanzas" of varying size yielding enormously. There are several instances of mines which have paid all costs from simple development work, leaving large bodies of rich ore in the stopes untouched. The best veins thus far exploited are not excessively wide, or else the pay-streak is well concentrated in one portion of the matrix. Owing to the slaty nature of the country rock, numerous spurs, shoots and branches, often of equivalent richness to the main vein, are liable to be uncovered upon one and the same property. But parallel veins may be of entirely distinct charater, and vary in quality within the most extreme limits. The usual experience that lineal extensions are rather unlikely to prove equivalent to proved stretches of ground, seems to be overthrown hereabout. Some of the richest veins have yielded large returns over a very considerable length.

This country is a favorable region for the operations of development companies. By the exercise of proper care in the organization and business management, a well-equipped company could dictate terms to the miners with great advantage to all parties, and the work could be so handled as to involve the minimum of risk. Bonds and leases which have been recently open to my inspection are more business-like and just to all parties concerned than any I have ever known. Persons whose integrity is well proved, and who desire to deal fairly with the miner without sacrificing their own interests, can make terms which will be very satisfactory and avoid the risks which middlemen have unnecessarily thrown about the average mining investment.

One particular advantage possessed by the Prescott region is accessibility. Good roads lead to all the prominent camps, and not a few of the more distant have been brought within reach within the past year by the construction of the railroad. The nature of the country makes road-building cheap and the grade easy. Besides, the climate is most excellent, being much more invigorating than in Southern Arizona and much less trying than farther north. Many pleasant homes have been established here, and houses and business blocks are crowded to full capacity, notwithstanding the great additions made since the advent of the railroad. Some of the most progressive merchants in the West are engaged in supplying the outlying camps, and the most successful of them have added to their wealth by mining investments. A number of prominent engineers have recently come here to work and all are busy and prosperous. Much of the capital invested has been taken from the mines. The owners of the Congress, another property made prosperous through the able management of Mr. W. F. Staunton, reside here and are interested in various local enterprises. There is not a prettier or more healthful place for residence in any part of the United States.

The Jersey Lily mine, reported sold abroad, has made an enviable record. This lies about 12 miles south of Prescott, in the Hassayampa District, at the end of an excellent wagon road recently constructed by Yavapai County. The ore is high-grade gold, free and sulphurets. Extensions of the property are also yielding some very rich ore.

The Little Jessie, in Chapparal Gulch, southeast, has shipped carloads of gold ore running up into the hundreds of dollars per ton. This is being steadily worked with very little stoping, leaving large bodies of merchantable material in the reserves. Development has reached 400 ft. in depth. Extensions here are also showing similar ore.

Quietly, but steadily and profitably, many other properties are being developed and many gold mills are in operation all over the region. The various districts are being actively explored and mines exploited in every direction. The Santa Maria region is attracting much attention. Mr. W A. Clark, of Jerome, has a large mill in operation there. The Congress, Yarnell and Vulture, with many other large properties are, in effect, tributary to Prescott, and the Senator, Crown King and Curtis belong to the region. Many others might be named, and very much of the rich gold area off to the southwest may eventually be included in our territory, if merchants and miners work together to that end.

Copper prospects are coming forward rapidly. From what was stated in my previous article, it may be inferred that the best of these are reported from near the line of the great northwest-southeast fault. Meanwhile Jerome continues its wonderful output and justifies the hopes of its owners.

Another favorable indication of the value of this region as a gold-producer is the great development of rich placers along many of the gulches and on flats at the lower levels. Hydraulic mining is in progress on Lynch Creek and in other places, and many miners earn fair wages by individual washings among the bowlders on numerous small creeks in the mountains. There are also some large tracts which carry "pay-dirt." Some of these lack water or dumping ground, others have large proportions of boulders, but some are more favorably placed for working. There is considerable hope of building up a profitable industry when capital is attracted to these valuable deposits.

Other minerals of importance lie within easy reach of Prescott. Lithographic stone, the best I have seen in the United States, with an extensive experience in the search for it, is available within 60 miles, and onyx marble much nearer.

There are other good opportunities for capital, such as irrigation enterprises, dams for hydraulicking, waterworks for Prescott, etc., which will eventually bring this district into prominence among investors.

It may not be generally known that some very high grade silver ores have been mined in the Prescott region. Several properties have produced heretofore, each up into the hundreds of thousands of dollars. Some veins carry large bodies of galena.

ABSTRACTS OF OFFICIAL REPORTS.

Niagara Mining and Smelting Company, Utah.

The report of this company for the year ending September 15th shows that there are outstanding 309,702 shares of stock, of which 128,452 shares are preferred, and 181,250 shares are common stock. The treasurer reports his total receipts as follows: From Salt Lake office, $9,665; bonds sold, $35,100; interest, $30; loan, $8,500; balance from previous year, $1,339; making a total of $54,633. Disbursements are noted as follows: Remitted to manager, $16,728; payment of loans, interest and discount, $19,738; retiring bonds, $4,500; tunnel claim, $8,500; salaries and other expenses, $3,861; total, $53,326, leaving a balance of $1,307 at the close of the year.

The manager reports that the total receipts from ore sales for the year were $22,992, including royalties The expenses on ore account were $14,841; on tunnel account, $8,463; on development account, $138; salaries, litigation, taxes and other expenses brought the total amount up to $41,677. The statement of ore sales is as follows: Utah and Spanish gold ores milled, 4,692 tons, the total value being $20,809, while the average saving per ton was 0·188 oz. gold, and 0·92 oz. silver; Spanish and Climax lead ore, 1,183 tons, averaging 0·183 oz. gold, 8·17 silver, and 18·7% lead per ton; Spanish and Climax iron ores, 529 tons, averaging 0·206 oz. gold, and 4·63 oz. silver to the ton: Live Pine, 179 tons, averaging 0·172 oz. gold, 62·31 oz. silver, and 24·3% lead per ton; 1889, lead ore, 119 tons, averaging 0·170 oz. gold, 10·43 oz. silver, and 27·5% lead; 1889, iron ores, 1,683 tons, averaging 0·186 oz. gold, and 4·61 oz. silver to the ton;

The total output for the year was 8,385 tons of ore, producing $32,594 in gold, 36,659 oz. of silver, and 594,494 lbs. lead. During the year patents have been obtained for the Climax and Ajax properties. The report of General Manager W. H. Thomas says that all the ores produced during the year have been mined by lessees from the surface workings of the mines, and the prospects for continued production are as good as they were at this time last year. The report adds:

"The Franklin tunnel has been extended to September 1st, 974 ft., making a total length of 2,705 ft. At 2,300 ft. we cut the first vein, consisting of 20 ft. of lime and vein material, but no ore. At 2,550 ft. we cut another vein of lime, quartz and iron, which we believe to be the front Spanish vein. The tunnel has also passed through several other lime belts, and is now being continued to cut the foot-wall and Spanish back vein. About 150 ft. west from where the tunnel crosses the Spanish front vein, there are several large ore bodies on both sides of a porphyry dyke, which crosses the mineral belt at this point, and by driving on the front vein we will without doubt intersect them."

Gas Engines for Pumping.—In Germany the first application of gas motors to raising water was made at Duren, near Aachen, in 1884; and in the same year a steam engine was replaced by a gas motor for the same purpose at Quedlinburg. In 1886 Rattwill and Coblenz, in 1887 Furth and Peine, and in 1888 Karlsruhe and Munster followed suit; and these installations are still working with excellent results. According to a recent report of the Quedlinburg Gas and Water Company the saving in the cost of pumping with gas engines, as compared with steam, taking the last year in which steam was used and the second with gas, was 42%. While the gas motor occupies less space than the steam engine with its boiler and chimney, it has the advantage as regards attendance, for one man can look after several gas engines, while a steam-engine plant of any importance requires an engineman and stoker, and often an additional hand to keep up the coal supply. Another advantage of the gas motor is the fact that it can at any time be put to work immediately, so that considerable water pressure may be made available in a few minutes, which is very important in case of fire, while the dimensions of reservoirs may be reduced if the motors be kept constantly running.

Inflammable Gas in Clay Working.—Chief Engineer Roberti-Lintermans recently presented to the Society of Mining Engineers a note on a number of accidents produced by an explosion of gas in an underground clay-working in Belgium. The production of the gas was attributed to the decomposition of the timber in the abandoned workings, which would naturally be rapid, owing to the moisture and the nature of the air imprisoned in the old workings.

CONTRIBUTIONS TO THE CHEMISTRY OF THE CYANIDE PROCESS.

Written for the Engineering and Mining Journal by E. A. Schneider.

(*Concluded from page* 489.)

ACTION OF CARBONIC ACID ON CYANIDE SOLUTIONS.

The action of oxygen on cyanide solutions has already been described. It was found that even undilute oxygen converts potassium cyanide very slowly into cyanate. Of all the other constituents of the atmospheric air carbonic acid is the only one which exercises a marked action on solutions of potassium cyanide. The bulk of the decomposition which such solutions undergo when exposed to the air can be therefore safely ascribed to the chemical action of carbonic acid.

In the first series of experiments equal volumes of cyanide solutions of varying strength (containing about 0·1%, 1% and 10% KCy) were exposed the same length of time to the action of the air in dishes of the same diameter (surface, 47·78 cm.²). The results obtained are laid down in the following table:

I. 100 cc. of the solution contained 0·2496 g. KCy:

May 15.	May 17.	May 20.	Decomposition.
50 cc. = 0·1248 g. KCy	= 0·0143 g. KCy		0·1105 g. KCy = 88·7% in 48 h.
50 cc. = 0·1248 "		= 0·000	0·1248 " = 100% in 120 h.

II. 100 cc. of the solution contained 0·9906 g. KCy:

May 15.	May 17.	May 20.	Decomposition.
50 cc. = 0·4953 g. KCy	= 0·3029 g. KCy		0·1924 g. = 38·8% in 48 h.
50 cc. = 0·4953 "		0·1150 g. KCy	0·3803 g. = 76·7% in 120 h.

III. 100 cc. of the solution contained 9·986 g. KCy:

May 15.	May 17.	May 20.	Decomposition.
50 cc. = 4·9943 g. KCy	Not tested.		
50 cc. = 4·9943 "		= 3·8805 g. KCy	1·1138 = 22·2% in 120 h.

These figures show that the strongest solution lost relatively the smallest quantity of cyanide; absolutely, however, the largest. They show also, in a general way, how easily cyanide solutions are decomposed when exposed to the air.

In the second series of experiments, in order to obtain a better comparison of the behavior of solutions of varying strength when exposed to the action of the air, three solutions were prepared by dissolving in every case the same weight of cyanide in varying quantities of water.

May 24.	May 27.	Decomposition.
5 cc. = 0·4615 g. KCy	= 0·1534 g. KCy	0·3081 g. KCy = 66·7%
51·4 cc. = 0·4615 "	= 0·2093 "	0·2522 " = 54·6%
200·5 cc. = 0·4615 "	= 0·3315 "	0·1300 " = 28·1%

In this case it was plainly evident that the weakest solution had suffered the least amount of decomposition. This result, however, is intimately associated with the height of the column of the solution as the following table shows:

May 27.	May 28.	Decomposition.
25 cc. contained 0·2488 g. KCy	0·1196 g. KCy	0·1092 g. KCy = 47·7%
50 cc. " 0·4576 "	0·3380 "	0·1196 " = 26.1%
75 cc. " 0·6864 "	0·5668 "	0·1196 " = 17·42%
100 cc. " 0·9152 "	0·7852 "	0·1300 " = 14.20%

Solutions in every case of the same strength.

The layer of the cyanide solution, which is affected by the carbonic acid of the air is in every case of about the same thickness, which is proved by the fact that in every case nearly the same weight of KCy has been decomposed.

From this and the previous experiments it follows:

If equal weights of potassium cyanide are dissolved in varying quantities of water the weakest solution will suffer absolutely and relatively the least amount of decomposition by the carbonic acid of the air.

If, however, the solutions are agitated and consequently new surfaces constantly exposed to the air, the weaker solutions will undergo a more thorough decomposition than the concentrated ones in the same length of time and under the same conditions.

In connection with these experiments means and ways were tested to prevent the decomposition of cyanide solutions. It is a well-known fact that coal oil has the property of forming an extremely fine continuous film when poured on aqueous solutions.

It was found that such a film of coal oil protects cyanide solutions from decomposition, provided no agitation of the solution takes place.

Into each of five crystallizing dishes of exactly the same dimensions (surface = 47·78 cm.²) 50 cc. cyanide solution were poured 100 cc. = 1·092 g. KCy. Three of the solutions were protected by a thin layer of coal oil and all of them exposed for a length of 14 hours to the air.

	Amount of coal oil used.	Thickness of layer (calculated).	Decomposition.
1. 50 cc. containing 0·5461 g. KCy	0·5 cc.	0·105 mm.	0·0306 g. KCy = 5·6%
2. 5 cc. " " "	0·2 cc.	0·042 mm.	0·0502 " = 9·2%
3. 50 cc " " "	2 drops	!	0·0650 " = 11·9%
4. 50 cc. " " "	none	.....	0·0735 " = 13.4%
5. 50 cc. " " "	none	.....	0·0702 " = 12.8%

If the solutions had been exposed for a still greater length of time the results would have been undoubtedly still more conspicuous.

A number of experiments were also performed in order to study the action of pure, undiluted carbonic acid on potassium cyanide solutions.

As these experiments have no direct bearing on the cyanide process as it is actually carried on, they will not be described in this place, with the exception, however, of one instance, where the results obtained were theoretically and practically of considerable interest.

Two sets of liter bottles were filled with carbonic acid and into each of these bottles a quantity of cyanide solution was poured; these solutions were allowed to remain in contact with carbonic acid for 24 hours. First set of bottles (I., II., III.); second set of bottles (IV., V., VI.). Into bottle I. and IV. 50 cc. cyanide solution were poured, which corresponded to 355·0 cc. $\frac{n}{10}$ $AgNO_3$ each. Into bottles II. and V. 50 cc. cyanide solution were poured, which corresponded to 35·2 cc. $\frac{n}{10}$ $AgNO_3$ each. Into bottles III. and VI. 100 cc. cyanide solution were poured, which corresponded to 17·70 cc. $\frac{n}{10}$ $AgNo_3$ each.

On opening the bottles it was found that in those containing the strongest solution a slight pressure, in those containing the weakest solution a distinct vacuum, could be observed.

The contents of bottles IV., V., VI. were now titrated with $\frac{n}{10}$ $AgNO_3$ solution after removal by rapid suction of the super-natant gases (Co_2 and H Cy). The contents of bottle IV. required 27·1 cc. $\frac{n}{10}$ $AgNO_3$ (355 cc. $AgNO_3$ original solution); the contents of bottle V. required 24·7 cc. $\frac{n}{10}$ $AgNO_3$ (35·2 cc. $AgNO_3$); contents of bottle VI. required 14·5 $\frac{n}{10}$ $AgNO_3$ (17·70 cc. $AgNO_3$).

Through the contents of bottles I., II., III., a rapid current of hydrogen was passed; it was found to be a very tedious task to remove all hydrocyanic acid from the solution. Therefore the experiment was interrupted after passing the hydrogen through the solutions for a couple of hours. After this treatment contents of bottle I. required 107 cc. $\frac{n}{10}$ $AgNO_3$; contents of bottle II. required 4·8 cc. $\frac{n}{10}$ $AgNO_3$; contents of bottle III. required 12·1 cc. $\frac{n}{10}$ $AgNO_3$.

This experiment shows that solutions of potassium cyanide are decomposed according to either of the following equations:

$$KCy + CO_2 + H_2O = KH\,CO_3 + HCy \text{ or}$$
$$2\,KCy + CO_2 + H_2O = K_2\,CO_3 + 2\,HCy$$

and that hydrocyanic acid as such can coexist with an alkaline carbonate or bicarbonate in solution.

It was found that such a solution is a solvent for gold, exactly like potassium cyanide, provided oxygen is present. A large quantity of the solution was prepared by allowing a cyanide solution to remain in contact with carbonic acid for six days. It was found that 50 cc. of the cyanide solution required before this treatment 35·20 cc. $\frac{n}{10}$ $AgNo_3$, after treatment, 31·15 cc. $\frac{n}{10}$ $AgNo_3$. Two pieces of gold foil were now suspended in this liquid, the bottles being filled in one case with oxygen, in the other with carbonic acid.

Bottle filled with carbonic acid.	Bottle filled with oxygen.
Weight of gold = 1·2570 g. (June 4).	Weight of gold = 1·2592 g. (June 4).
Weight of gold = 1·2524 g. (June 10).	Weight of gold = 0·8872 g. (June 10).
Weight of gold dissolved = 0·0046 g.	Weight of gold dissolved = 0·3720 g.

In each case a strip of gold foil was used, whose surface measured 686 mm². Each bottle contained 250 cc. of the solution.

It has been thus proved that a solution containing a mixture of hydrocyanic acid and a carbonate or bicarbonate of alkali is an excellent solvent for gold, provided oxygen is present.

TREATMENT FOR INJURY FROM ELECTRIC SHOCK.

In view of the number of electric installations recently placed in mines, it is of importance that there should be a general knowledge of the best way to treat sufferers from shocks accidentally received from the wires. In mining operations the use of low tension currents in a majority of plants lessens the probability of injury from accidental contact with the wires, nevertheless a thorough knowledge of the exact thing to do in case of such injury is of importance to the employees of every electrical mining plant. The "Electrical Review" of this city recently prepared a printed slip for distribution, containing full instructions on first aid to the sufferer from electric shock, a part of which we quote below by permission:

"If ordinary precaution is observed in handling the electrical cables, wires or apparatus, no danger need be apprehended: but where indifference to well-known restrictions or negligence in any form is allowed to prevail, serious consequences may ensue, not only to the individual guilty of such negligence, but to others who may be associated with him in the discharge of his duty. Regard any apparatus with which you may have to deal as capable of affording a shock and adopt precautions accordingly.

"In cases where a man has received a serious shock and life appears extinct, efforts similar to those employed in cases of drowning should be made to restore animation. Recent experience has shown that the system known as the 'Laborde' system has been very successful. The treatment is as follows:

"Lay the patient on his back in the open air. Remove his neckcloth and unfasten his collar. Open his mouth, and, taking hold of the front part of the tongue with your fingers—either bare or covered by a handkerchief—very slowly draw the tongue forward and as gently let it go back again 16 times a minute. Be sure that the root of the tongue is acted upon and drawn forward. Continue this action until signs of reanimation are observable, which should be the case in from 10 to 20 minutes. The motion thus imparted to the tongue should be regular and rhythmical in both its tractions and relaxations. If, in attempting to seize the tongue, it is found that the jaws are closed and the teeth clenched, open them by the finger, if possible, or, failing this, by a wedge-shaped piece of wood, the handle of a pocket knife, or anything of the kind that may be at hand. Keep them wedged open.

"The first opportunity should be taken advantage of by the services of anyone within call, to obtain the presence of a medical man, who should, upon his arrival, be requested to take charge of the further treatment of the patient, the purpose of the foregoing instructions being to enable such restorative measures to be adopted as may be possible, pending the arrival of a qualified medical practitioner."

Brown Coal or Lignite Mining in Germany.—The report of the Verein fur die Interessen der Braunkohlen-Industrie, which has lately been issued, draws attention to several technical points which have been raised during the past year. In some parts of the Rhenish brown coal mining district, clay-pits under the coal seams are being worked, and as this is not without danger to the coal mining industry, the Society drew the attention of the State mining authorities at Bonn to the matter. It appears, however, that clay mining does not come within the scope of the department. Owing to the insufficient strengthening of the galleries in the clay mines, the clay often falls in, thereby disturbing and destroying the brown coal deposits above. The authorities have replied to the effect that the damage done to the coal deposits does not appear to be so great as to necessitate State interference in the matter. In March, 1894, the Minister of Agriculture, Domains and Forests issued a regulation to the effect that on lands obtained under concession from the Forest Department no new briquette-making plants must be established.

THE ATLANTA EXPOSITION.

Written for the Engineering and Mining Journal by our Special Correspondent.

IRON AND MANGANESE ORES.

The Alabama exhibit includes specimens of limonite from Red Mountain in Jefferson Country; from Rock Springs; the Ridgeway Mine near Manchester, Brown's Valley, Marshall County; Farrell, Cherokee County; Colbert County; Blount County; Champion Mines, Jefferson County; Tuscaloosa County; Shelby County; St. Clair County; Calhoun County from the vicinity of Anniston.

Specimens of hard red hematite from the Sloss Mines, Jefferson County; from the Tennessee Coal, Iron and Railroad Company's mines, Red Mountain, Jefferson County; from the Stevens' Mine, Graces Gap Mine, Dago Mine and Alpharetta Hollow Mine, Jefferson County; from St. Clair County; and from the Irondale Mine, Jefferson County.

In the Arkansas exhibit are found specimens of limonite from the counties of Pocahontas, Randolph, Montgomery, Garland, Marion, Washington, Polk, Baxter, Newton, Saline, Carroll and Pulaski. Specimens of magnetite from Magnet Cove. Specimens of manganese ore (pyrolusite) from Pulaski and Independent counties.

The Georgia exhibit was fully reported in the "Engineering and Mining Journal" of October 5th last.

North Carolina shows specimens of limonite from Little Mountain Mine, Gaston County; Ore Hill Mine, Chatham County; Valleytown, Cherokee County; Morse Place, near Murphy, Cherokee County; Martin's Creek, Valley River; Hiawassee River and Hank's Place, Valley River; Linville Mountain, McDowell County; Hickory, Catawba County; Crowder's Mountain and the Ormonde Mine, Gaston County.

Specimens of hematite from Seth Post-office, Granville County; Big Ridge Mine, Watauga County; Douglass Mine, Harnett County.

Specimens of hematite (martite schist) from Bull Ruffin Mine, Watauga County.

Specimens of specular hematite from Townsville, Vance County, and Bald Mountain, Mitchell County.

Specimens of magnetite from Link-Benedict Place, Iron Station, Lincoln County; Big Ore Bank, Lincoln County; Fagg Place, Stokes County; Hard Ore Bank, Stokes County; School House Ridge, Stokes County; Madison County; Rogers Ore Bank, Stokes County; and Cranberry Mine, Mitchell County; (gneissoid) from Rockford, Surray County; (titaniferous) Orleans Post Office, Lincoln County; Macon County; Big Yellow Mountain, Pumpkin Patch Mountain, Greasey Creek, Little Rock Creek, Mitchell County; and from Cartoogajay Creek, Macon County; (catawbarite) from Soapstone Ore Bank, Stokes County; and specimens of hornblende gangue rock from Stokes County.

Specimens of manganese ore (psilomelane) from Caldwell County; Cherokee County; Kings Mountain, Gaston County; and one specimen (psilomelane and pyrolusite) from Alleghany County.

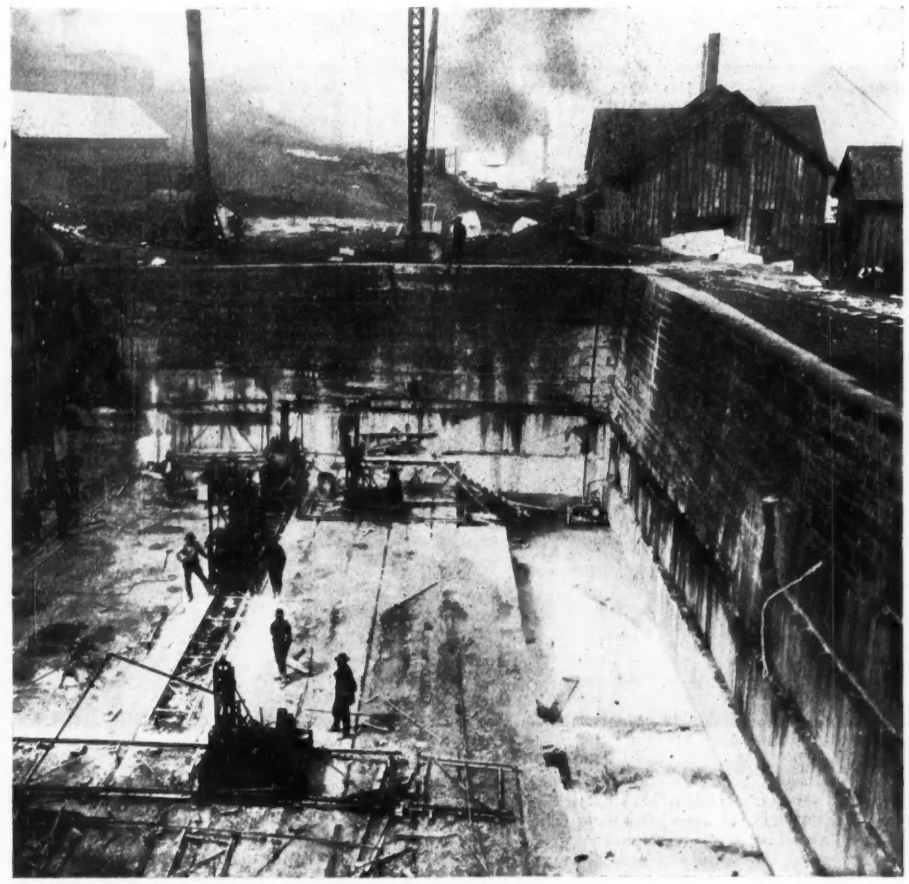
In connection with the iron ore exhibit from this State, the Cranberry Mines are represented by specimens explanatory and illustrative of the method of handling and treating the ore at that location. In these are embraced the following: magnetite with calcite, ore from run of mine, gangue, ore from crusher, concentrates which pass over a ¼-in. screen, concentrates which pass through a ¼-in. screen, concentrates from first set of magnets, tailings from first set of magnets, fine concentrates No. 1 and No. 2, tailings from fine concentrators, coke used at furnace, and cinder produced by furnace. A quantity of lump magnetite ore has been placed in the building near the McCully rock crusher, and the electro magnetic separators of the Ball-Norton and Chase patterns, which are on exhibit and wired up ready to be operated. The visitor can see the operation of crushing, as well as the further treatment of concentrating and preparing the magnetite ore for the furnace.

Tennessee shows specimens of red hematite from the Roane Iron Company's property, Rockwood, Tenn.

SOME GEORGIA MARBLE QUARRIES.

Written for the Engineering and Mining Journal by our Traveling Correspondent.

The quarries of the Georgia Marble Company, to which references have already been made, are located in the valley of Long Swamp Creek, 1½ miles east of Tate Station, in Pickens County, on the line of the Marietta & North Georgia Railroad. The valley here is nearly half a mile in width, the greater part being underlaid by marble occurring from 6 to 8 ft. beneath the surface. In length the marble outcrop shows on the side hills which enclose the valley for a distance of about six miles. In this distance are also located the quarries of the Piedmont Marble Company and the Southern Marble Company, which are connected with the main line of the railroad at Tate by a private line of road operated by the Georgia Marble Company. This company transports all the marble quarried in the district, whether from its own or other companies' quarries. The description following includes the Creole No. 2, Kennesaw, Cherokee No. 2, and Etowah quarries.



VIEW IN KENNESAW MARBLE QUARRY, GEORGIA.

These quarries are on the property operated by the Georgia Marble Company, which was organized in May, 1884, with a capital of $1,500,000. The cost of equipping and putting the mills and quarries in operation was nearly $800,000. The officers of the company are: H. C. Clement, president; G. W. Hoffman, vice-president; O. F. Bane, secretary and treasurer; S. H. Wright, assistant secretary; Geo. H. Keely, general manager. At the present time this company is employing about 200 hands, including day laborers, machine-men and stone-cutters. As the number of employees fluctuates according to the demand for the product, it is impossible to give the exact average. The daily rate of wages paid to laborers is $0.85; to machine-hands, $1.25 to $2; sawyers, $1.75 to $2, and polishers at the same rate. These last are only employed by the companies which finish the product of the quarries and who purchase the marble from the Georgia Company.

The marble occurs between walls of mica schist and garnetiferous gneiss. The unusual width of the deposit is accounted for by Mr. S. W. McCallie, assistant State geologist, as being due to a fold in the stratum. This was demonstrated in making an excavation for the smokestack of the company's mills, when it was found that the marble at that point dipped in opposite directions, which locates the center of the fold whose upper portion has been removed by erosion.

The Creole and Cherokee quarries are located on the east side of the

fold, while the Etowah is on the west side. The Cherokee quarry is near the Creole and the Kennesaw about two miles west of the others. The extent of these quarries is as follows: No. 1 Creole, 90 ft. square and 130 ft. deep; No. 2 Creole, 100 ft. square and 40 ft. deep; Old Cherokee, 80 ft. square and 60 ft. deep; New Cherokee, 100 ft. square, 25 ft. deep; Etowah No. 1, 90 ft. square, 50 ft. deep; Etowah No. 2, 80 ft. square, 20 ft. deep.

The difference in the marble taken from the different quarries is merely in color. The product of the Creole No. 2 when polished is a very dark mottled gray color; that from the Cherokee is a lighter clouded gray; that from the Etowah is pink, and from the Kennesaw nearly pure white. With the exception of the pink, all are used for monumental and ornamental interior finishing work. The pink is used for columns and interior finish. The marble from the Cherokee quarry is chiefly used for wainscoting.

The cost of quarrying depends entirely on the soundness of the stone. At the present time the cost is less per cubic foot at the Cherokee quarry than at any of the others, because the stone is so sound that there is but very little waste. A great proportion of the unsound stone from the various quarries is sawed for dimension stuff for building stock. The Georgia Company is at present quarrying the marble for the Century Building at St. Louis, having an order for 44,000 cu. ft.

In working these quarries no explosive is used; the quarrying is done by chaneling machines, gadders and the Ingersoll-Golding machine. The hoisting from the quarry is done by traveling derricks. Although the Creole and Cherokee quarries are numbered 2, yet the No. 1 quarries have not been abandoned, but the new ones were opened because a very desirable variety of color was obtained from each which could not be obtained from the old quarries. The old Creole quarry is 140 ft. deep, and no change is apparent in the stone. No borings have been made to ascertain to what depth this sound stone continues, but it will be readily seen that figuring on the immense superficial area which is covered by marble and a depth of 140 ft. obtained at this particular point besides nearly as great a depth at other points, the supply of marble is practically inexhaustible. Mr. McCallie, in his report, estimates that the thickness of the deposit underlying the Long Swamp valley in this vicinity is at least 200 ft. With regard to the weathering of this marble, the effect of such is well illustrated by the steps at the residence of Col. Stephen Tate, which are reported to have been quarried by the Indians. Although exposed under dripping eaves for a period of over 40 years, the stones show no signs of disintegration, and they still retain in a remarkable degree of perfection their sharp edges and corners.

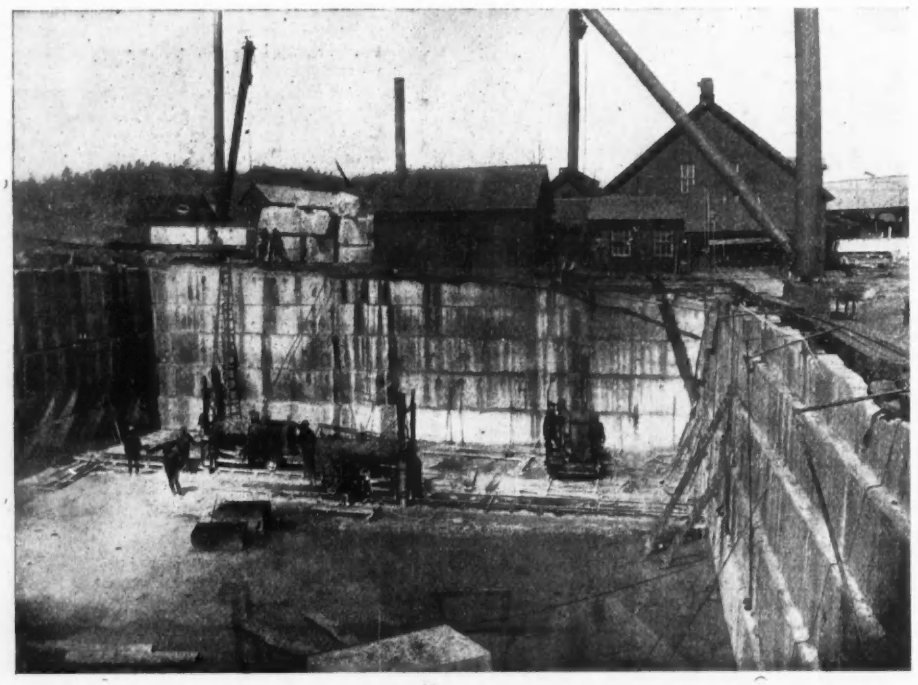
Some idea of the grade of these marbles can be gleaned from the results of the following mechanical tests made with the United States testing machine at Watertown Arsenal, Mass.

TESTS BY COMPRESSION. THREE CUBES OF MARBLE.

Test marks.	Height inches.	Sectional area sq. in.	Ultimate strength. Total pounds.	Ultimate strength. Pounds per sq. in.
4,337 Cherokee	6·04	39·06	395,800	10,976
4,338 Creole	6·03	36 94	434.100	12,078
4,339 Etowah	6·03	36 12	384,400	10,642

The fractures were pyramidal.

Some idea of the extent of the work performed by the Georgia Company can be gleaned from the fact that in their plant for sawing the blocks, they operate 30 gangs or frames. The number of saws to a frame depends entirely on thickness of the slab required. In the polishing works of Geo. B. Sickles & Company, in the near vicinity of the quarries, as great a number as 60 saws are used in one frame. Besides the gangs, rubbing beds are placed in the building for the purpose of preparing imposing stones and bases for monuments. Beyond this the Georgia Company does not finish any of its product, but sells rough marble to Geo. B. Sickles & Company, of Tate; the Blue Ridge Marble Company, of Nelson; and the Kennesaw Marble Company, of Marietta. These firms have large and very complete plants for finishing this marble and manufacturing into monuments, coping, tiling, wainscoting, stair marble and all interior work.



CHEROKEE MARBLE QUARRY, GEORGIA.

GRANITE ROCKS OF MISSOURI.

Written for the Engineering and Mining Journal by Charles R. Keyes.

The granites of Southeastern Missouri are of unusual interest and great commercial value, for the reason that they are the only massive crystalline rocks occurring in the Mississippi Valley between Central Arkansas and Lake Superior and between the Appalachians and the Rocky Mountains. The development of these areas is therefore of special importance on account of the wide extent of territory they are capable of supplying with a high grade of building and ornamental stone.

In instituting an investigation of the quality, adaptability and availability of the various rock masses the Missouri Geological Survey has begun to carry out the inquiry along several different lines; the results of all of which will be, when brought together, of the greatest importance in determining the comparative value of the rocks as constructional materials.

When the work will have been completed, as a part of a comprehensive report on the building and ornamental stones of the State, the various rocks will not only have been thoroughly tested by ordinary engineering methods, but by modern petrographical examinations—that is, examinations in thin slices under the microscope will have been made Thus the microscopical character, and, consequently, the mineralogical constitution will be determined with great detail and accuracy.

The first results of the general investigations has just been published as a part of Volume III. of the reports of the Missouri Geological Survey. It is a strictly petrographical study with little direct reference to its economic bearing, but it forms the foundation upon which is now being reared a structure of great popular interest and value. The title of the work is the "Crystalline Rocks of Missouri" and it is the outcome of researches conducted by Dr. Erasmus Haworth, now professor of inorganic geology in the University of Kansas.

The are a number of points concerning the rocks in question, which, aside from their economic importance, are of unusual interest. To begin with, the geographic distribution of the massive crystallines presents certain peculiarities. They are confined to the southeastern part of the State, where they occur in irregular masses and isolated hills extending over an area 70 miles square, which is widely known as the Iron Mountain country. The series consists of granites and porphyries as the principal types, with several varieties of dark trappean rocks which are chiefly diabase and which occur in the form of dikes. All are very old, in fact the most ancient rocks exposed within the limits of the State. They are regarded as igneous in nature and as pre-Cambrian in age. The nearest exposures of rocks of like antiquity occur in Northern Wisconsin and Minnesota. Outcrops of other crystalline masses are found in Central Arkansas, but all of these are much younger, probably Cretaceous, and consequently are in no way related to those of Missouri.

The approximate center of the crystalline district is Pilot Knob. For a distance of perhaps a dozen miles in all directions from this point the massive crystallines form the greater portion of the surface rock; while in an easterly direction they are practically continuous for more than twice as far. Beyond the large central field the exposures gradually become less and less frequent. To the north they do not reach much beyond Bismarck. Northeastward they are found in Ste. Genevieve County, 30 miles from Pilot Knob. On the east, hills of similar rock are abundant as far as Castor Creek. To the south they stretch away in large masses for many miles, with occasional outcrops as far as the

boundary line of Butler County. To the southwest they extend into Shannon County and perhaps even beyond. They stretch ont to the west almost unbrokenly to the east fork of Black River; while numerous scattered hills continue even beyond the middle fork of the same stream. Toward the northwest similar rocks occur at short intervals as far as Little Pilot Knob in Washington County.

Previous to the present investigation the character of the Missouri crystallines was known only in the most general way, but since the application of modern petrographical methods to their study a mine of information has been opened. Although the classification, in its terminology, is entirely a petrographical one it has a direct correlation with characters and properties which give economical value to the stones, as will be seen later. The wide range of structure or texture and the consequent varient physical properties is especially noteworthy.

There are three principal groups: the diabases, the granites and the porphyries. Among the first or basic rocks there are:

- Basic rocks (traps or diabases)
  - Holocrystalline.
    - Ophitic
      - Olivine free—Diabase.
      - Olivine-bearing—Olivine diabase.
    - Porphyritic.
      - Quartz-free—Diabase porphyrite.
      - Quartz-bearing—Quartz diabase porphyrite.
  - Glassy.
    - Olivine free—Diabase porphyrite.
    - Olivine-bearing—Melaphyre.

In a similar way the granites are subdivided:

- Granites.
  - Granular.
    1. Granite quartz and orthoclase, with microcline and plagioclase.
    2. Granite or biotite granite. Same constituents as above, with addition of black mica.
    3. Hornblende granite. Same as above, with the addition of hornblende.
  - Porphyritic.
    4. Granite porphyry. Mineralogically same as granite; phenocrysts feldspathic.
    5. Granite porphyry. Mineralogically same as granite; phenocrysts quartose.
  - Granophyric.
    6. Granophyre. Mineralogically same as granite.

The porphyries are represented by the following:

- Porphyries.
  - Porphyrite. Large crystals plagioclase.
  - Porphyry.
    - Microgranite—Groundmass finely granular.
    - Granophyre—Finely pegmatitic.
    - Feldsphyre—Groundmass crystalline.
    - Vitrophyre—Groundmass glassy.

The principal varieties, though graduating more or less into one another, are in a general way very distinct, and all present very characteristic differences in quarrying, dressing, durability and strength. The true granites are of greatest importance, and are the only ones which can be used for building purposes.

All tests and examinations go to show that for all kinds of building, constructional and ornamental work the granites of Missouri are unsurpassed by any in the world. The mineralogical composition is such that all the less durable components which usually occur in granite are entirely absent or are in a minimum amount, and that the stone is made up of the most resistant varieties of those minerals which form the essential constituents.

The stone has been used in leading structures in Dallas, Kansas City, Omaha, St. Louis, Des Moines, Minneapolis, New Orleans, Chicago, Indianapolis, Cincinnati, Cleveland, Baltimore and many other large cities. It is certain to have a very much wider utility.

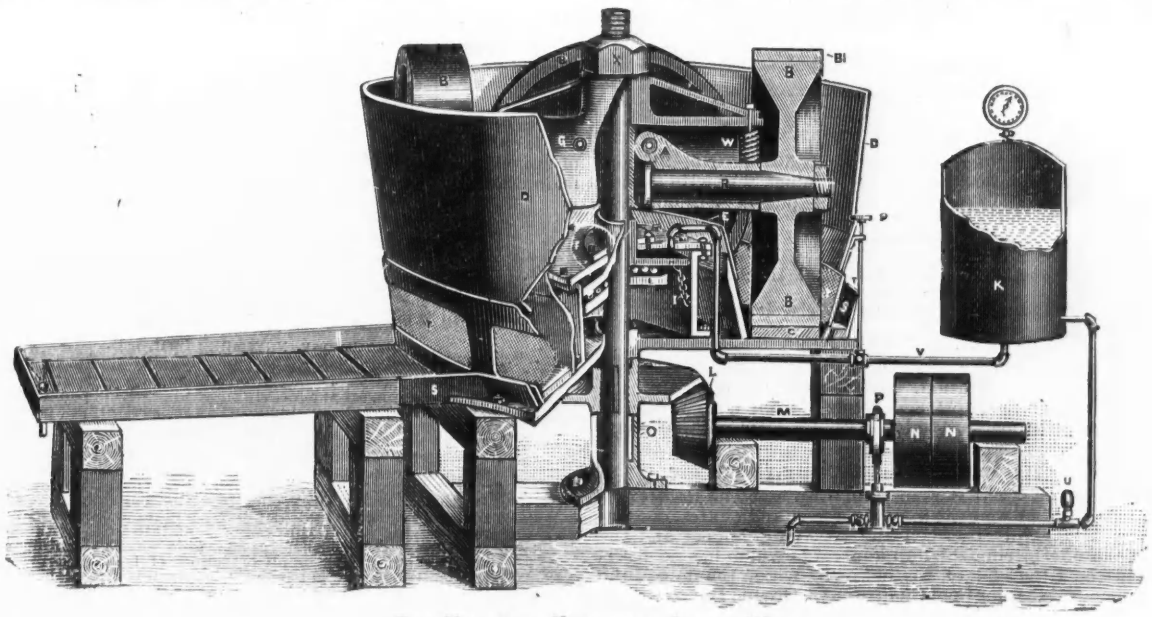
Aluminum Manufactory in Norway.—The Hafslund estate, with the one-half of the Sarp Waterfall, has been sold for the sum of 800,000 kr., or about $220,000, to a syndicate of Norwegian and German capitalists. Half the board is to consist of Norwegian subjects. It is the plan to apply the large water power to a new aluminum factory on an extensive scale.

Mica Mines in India.—According to "Indian Engineering," the only mica mines worked in Bengal are those of Singar and Supahi in the Nawada subdivision of Gaya. But their output appears to be decreasing, the figures for the last three years being for 1892 maunds 800, for 1893 maunds 640, and for 1894 maunds 547.

THE MERRALLS HYDRAULIC QUARTZ MILL.

The accompanying illustration shows the Merralls quartz mill, which is a grinding mill of the Chilean type, its special peculiarity being the use of hydraulic pressure to secure contact between the grinding wheels and the bottom of the pan in which the wheels revolve.

As shown in the cut, the cast iron bottom of the mill rests on heavy trestles, on which is cast the annular mortar, and in which rests the steel die C. S shows the shute for carrying off the pulverized ore and water, as it comes through the screens T and is conveyed to the amalgamated plates, as shown. T are the adjustable screens, the entire circumference of the mill, which gives this mill a very large screen area; consequently the ore is not slimed, for as soon as pulverized it passes out of the mill into the shute S. BB are the crushing wheels, made open as shown to facilitate the discharge of the crushed pulp through the screens. B1B1 shows the steel tire or shoe around the wheels BB, made very strong. At I is shown the cylinder, bolted to the pan, in which is the piston H, with part of the piston extending up the upright shaft. At L is shown a collar securely fastened to the shaft, and between the collar and piston H is a ball-bearing. These are steel balls running in oil, to reduce the friction that occurs when the pressure of water is applied to the piston H. This piston has a leather cap (common to all hydraulic valves) fixed on it, and does not revolve, being held by the chains, but the upright shaft revolves through it. F, the top of the cylinder, is bolted to the cylinder. E shows the inside cone of the annular mortar around which the crushing wheels revolve. At P is shown the pump on the horizontal shaft, M. K shows the tank or receiver for the water that is pumped by the pump, P. In this tank is a column of air which acts as a spring to drive out the water when the three-way cock, O, is opened. U is a relief valve, that can be set at any desired pressure, and regulates the amount of pressure on the piston, H, and in the tank, K. At A is shown the hinged box in which the wheel shaft, R, revolves,



THE MERRALLS HYDRAULIC QUARTZ MILL.

and on which are keyed the crushing wheels, B. W shows the massive coil springs, in nests, which receive the pressure that is imparted by the action of the water on the piston, H, through the spider, as shown; and when the pressure is on these steel springs W, close within 3 in., so that in case a bolt, nut, drill or hammer should get into the mill each wheel can lift up and pass over the obstruction. Each wheel acts independently of the other one, and is hinged by the hinge bolt G. At V are shown the water-pipes from the tank to piston; L, the gears; D, splash apron; NN, show light and loose pulleys. At O is shown the step box that holds the upright shaft in position. X shows the tension nut, on the top of the upright shaft, to regulate the height of the spider.

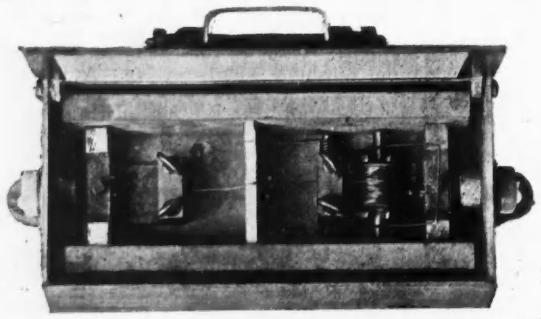
The advantages claimed for this machine are its compact construction, the small space occupied, the ease with which it can be moved when necessary, and the quickness of adjustment for coarse or fine work, as desired. It is claimed that a machine of the 6-ft. size will crush as much rock as a 10-stamp mill, and that less power is required. The machine is made by the Merralls Mill Company, of San Francisco.

Saving Blast Furnace By-products.—Several iron-smelting firms have either completed or projected plants for the recovery of ammonia, etc., in the pig-iron industry, says the London "Iron and Coal Trades Review," but it should be remembered to their credit that Messrs. Robert Heath & Sons, of the Biddulph Valley Works, in North Staffordshire, were the pioneers in this direction in England. On the other hand, the Scotch firms had adopted the system at a much earlier date. Practically all the works in Scotland have now provided plants for the recovery of the by-products at the furnaces, and have thereby been enabled to secure a large increase in the value of their products—the average value of the by-products being about 3s. per ton of pig-iron produced. Hitherto, however, very few works in England have taken up the system, mainly because the coal used is too soft, and will not bear the necessary burden in the blast-furnace without being coked as a preliminary. Hence, in some cases, as at the coke manufacturing establishments of Pease & Partners and B. Samuelson & Co., in the Durham coal-field, plant has been provided to recover the by-products in the process of coking.

THE CARD ELECTRIC FUSE BOXES.

What the safety valve is to the boiler, so may be considered the fuse, the electric motor or generation. Its blowing when carrying more than its rated amount of current, saves the windings from a like overload. The time required for replacing a fuse when blown is an important point and the fuse box gotten out by the Card Electric Company, of Mansfield, Ohio, meets this requirement effectively. It is made up with a slate bottom and sides, and has brass binding blocks at each end for securing the connecting wires to. At one end is a small spool, on which is wound a length of the fuse wire selected. The wire passes from the spool under a clamping piece on the binding block, through a slot in the slate partition and under another clamp on the opposite binding block, completing the circuit. The illustration shows the slate box in a metal case, with the front open, exposing the fuse. The lid closes tightly and the box has a projection along the top, making it water and snow proof. A folded piece of asbestos slips inside the box along the sides, over the fuse, insulating the lid. A spring on the outside of the lid acts to hold it either closed or open.

When a fuse blows, all that is necessary to do is to loosen the thumbscrews, pull through more wire and clamp it down. It is not necessary to hunt



THE CARD ELECTRIC FUSE BOX.

for wire, and no time is lost. Each spool will hold 35 ft. of No. 21 copper wire, enough for 100 of the 50-ampere fuses. When the wire is used up the empty spool can be taken out and a full one put in without loss of time.

RECENT DECISIONS AFFECTING THE MINING INDUSTRY.

Specially Reported for the Engineering and Mining Journal.

UNITED STATES CIRCUIT COURT, EASTERN DISTRICT OF MISSOURI.

Claims for Supplies.—Claims for labor and materials of supplies furnished to a merely private corporation, such as a mining company, are not entitled to priority over the mortgage bonds of such corporation, or over a vendor's lien on its property.—Snively vs. Loomis Coal Company, 69 Federal Reporter, 204.

UNITED STATES CIRCUIT COURT OF APPEALS, NINTH CIRCUIT.

Infringement of Patents—Coal Screens and Chutes.—The Roberts reissue, No. 7,341, for an improvement in coal screens and chutes, consisting principally in a reservoir between the receiving hopper and the delivery chute, held not infringed by an apparatus which has no reservoir, but uses a gate near the end of the chute by which the flow of the coal can be controlled.—Excelsior Coal Company vs. Oregon Improvement Company, 69 Federal Reporter, 246.

SUPREME COURT OF UTAH.

Contributory Negligence.—The law is that the employer is bound to furnish a reasonably safe place for the employee to work in, and must furnish such information as to dangers latent or not apparent as may reasonably put the employee on his guard. Where the locality or the appliance is dangerous, and the means of knowledge are equally within the knowledge of the employee and the employer, the latter is not obliged to take any greater care of the former than he (the employee) does of himself. In an action against a mining company for injuries it appeared that there was a walk, made several years before the accident, resting on timbers and made in the usual way; that it is not customary to repair such walks; that the employee was an experienced timberman, and knew the planks were rotten; that he undertook to walk across one of such planks, when it broke, and he was injured; that it was not necessary for him to cross such plank, and that there were plenty of new planks to be had by him, by asking for them. Even though it should be held that the employer was negligent in not notifying him or sending some one with him to warn him of the condition of the plank which broke, the evidence shows that the accident occurred through the negligence and rashness of the employee himself, directly contributing to the injury. He had all the knowledge which any one could have as to the general condition of the timbers, and of the probable rottenness or soundness of the planks by which he attempted to cross. The omission to take these ordinary precautions, under the circumstances, was an assumption of the risks involved, and the consequences cannot be thrown upon the employer. He knew that, if the plank happened to be decayed or defective, there was no custom of the employer, or of any mine, to repair it. He knew that he was thrown entirely upon his own discretion and judgment, and could expect nothing on account of any care on the part of the employer. The courts, without hesitation in all cases like this, deny relief to the party injured. A contrary rule would make the employer not only an insurer, but an insurer against the recklessness and carelessness of the employee himself. —Cook vs. Bullion-Beck & Champion Mining Company, 41 Pacific Reporter, 557.

German Rail Exports.—The exports of rails from Germany for the eight months ending August 31st were 92,018 metric tons, an increase of 1,212 tons over the corresponding period in 1894.

Roumanian Coal.—It is reported that valuable beds of coal have been discovered in the Garjin district in Roumania. Some English capitalists contemplate working the deposits.

Gas Engines in Berlin.—According to a statement lately published, the number of gas engines in Berlin has risen during the past year from 1,089 with 4,757 H. P., to 1,123 with 5,144 H. P. The average size of the new engines is 11·4 H. P., as against 5·3 for the preceding year. The average size of all the engines in use was 4·58 H. P., as against 4·37 the year before. Very small gas motors seem not to be in vogue at all; but the newer engines run up to 60 H. P.

Belgian Iron Makers in Russia.—The works for the manufacture of iron and steel which have been erected in Russia during recent years have mostly been designed and constructed by German and Belgian firms, says the London "Iron and Coal Trades Review." The Angleur Steel Company, near Liege, has lately undertaken to construct a large establishment in Russia, consisting of two blast furnaces and a large steel plant, which they will equip direct from Belgium. Belgian engineers have also completed the new steel works that have recently been erected at Hang Kow, in China, although a lot of the plant was designed and supplied by a well-known Middlesbrough firm. Another Belgian establishment—the Ougree Company—has arranged, like the Cockerill and Angleur companies, to erect branch works in Russia.

The New Tunnel Under the Thames.—The completion of that portion of the new tunnel under the Thames at Blackwall, London, which is under the river was recently celebrated by the contractors. The tunnel is intended to connect the sections of London on opposite sides of the Thames at a point below any of the bridges. With its approaches the tunnel is one mile in length, of which 3,694 ft. had to be driven in tunnel on the compressed air system, while 771 ft. is being built in open trench work and afterward arched over. The remaining length—about 700 ft.—is open approach with heavy retained walls on either side. The tunneling proper was started in March, 1892, and in September, 1894, the section of 1,214 ft. immediately under the river was begun. Some delay was caused by the breaking in of water, but this danger is now passed, and the arching is entirely completed. At one point there was only a little over 5 ft. of gravel between the top of the tunnel and the water. The tunnel is 27 ft. in diameter.

PATENTS RELATING TO MINING AND METALLURGY.

United States.

The following is a list of the patents relating to mining, metallurgy and kindred subjects issued by the United States Patent Office. A copy of the specifications of any of these will be mailed by the Scientific Publishing Company upon receipt of 25 cents.

TUESDAY, NOVEMBER 19TH, 1895.

549,907. Apparatus for Extracting Gold. Alfred L. Eltonhead, Philadelphia, Pa. The combination of a mercury-receiving box with a horizontally movable vessel therein, an anode-strip suspended within the latter, the cathode connection and the conductor wires respectively adapted to connect the anode and cathode with a suitable battery or dynamo.

549,925. Miner's Candlestick. William Lincicum and Charles F. Lewis, Colorado City, Colo. Combination with a spring candle socket of an oblong frame and a sharpened tang pivoted at its inner end in said frame.

549,981. Art of and Apparatus for Converting Heat into Work by Agency of Vapor Pressure. Arthur M. Wellington, New York, N. Y.; Agnes B. Wellington, executrix of said Arthur M. Wellington, deceased. The improvement in the art of converting heat into work by the agency of vapor pressure, which consists in passing a circulating fluid at a regulated temperature from a supply or source of heat to a pressure generator thermally dissociated from said supply or source of heat and containing the working substance, heating the working substance by the surrender of heat thereto by the circulating fluid, and discharging the circulating fluid from the pressure generator, substantially as described.

549,982. Step-Series Engine Process and Apparatus. Arthur M. Wellington, New York, N. Y.; Agnes B. Wellington, executrix of said Arthur M. Wellington, deceased. The step-series engine process, which consists in passing a circulating fluid from a supply or source of heat to a pressure generator thermally dissociated from the supply or source of heat and containing a working substance, heating the working substance by the surrender of heat thereto from the circulating fluid, applying the working substance in an expansion engine, applying the exhaust from said engine to heating a second working substance, applying said second working substance in a second expansion engine, and so on, if desired, for other steps, substantially as described.

549,983. Thermodynamic Process and Apparatus. Arthur M. Wellington, New York, N. Y.; Agnes B. Wellington, executrix of said Arthur M. Wellington, deceased. The thermodynamic process, which consists in passing a circulating fluid through a series of pressure generators and applying it to heating working substances in said pressure generators, applying said working substances in expansion engines, and applying the circulating fluid to condensing the working substances exhausted from some or all of the successive engines, substantially as described.

549,996. Regenerative or Recuperative Furnace. August Dauber, Bochum, Germany. Patented in Germany September 4th, 1893, No. 77,399; in France September 17th, 1894, No. 228,372, and in Belgium September 22d, 1894, No. 85,438. Combination with the furnace of channels and uptakes to conduct the gases to a mixing chamber, from which they can be returned to the furnace.

550,024. Process of Disintegrating Thomas Slag. Emil Meyer, Berlin, Germany. A process consisting in introducing into the slag while in a fluid state an alkaline disintegrating agent, such as alkaline carbonate, or alkaline silicate.

550,038. Chilian Mill. Martin P. Boss, San Francisco, Cal. The combination of the crushing wheels, the shaft by which their travel is effected, and the means for connecting the wheels to the shaft, consisting of a vertical sleeve feathered upon the shaft and adapted to move freely vertically, the axles of the crushing wheels each having a hub which forms a complete journal box.

550,051. Apparatus for and Art of Transporting Coal. Edward S. McKinlay, Denver, Colo. The improvement consists in cutting the coal from its natural bed initially in masses of reduced particles, immediately withdrawing the said particles from the cutting machine simultaneously with the cutting action through a duct extending to the mouth of the mine by a series of air jets at different points along said duct and acting successively.

550,074. Rock-Drill. Harvey P. Jones, Denver, Colo., and George B. Jones, Chicago, Ill. Combination, with the reciprocating hammer having a reduced cylindrical portion of the rack saddle riding on the said reduced portion, and a gear to engage the saddle.

550,219. Dry Concentrator. Henry C. Down, Denver, Colo. Combination, with a suitable stationary frame or casing, of a vibratory frame attached to the stationary frame, and stratifying box provided with the transverse riffles increasing in height from the upper to the lower extremity of the box, the bottom of the box being composed of wire cloth and thicknesses of cotton cloth or similar material.

PERSONAL.

Senor Pedro J. Sosa, the distinguished Colombian engineer, arrived in this city from Panama last week.

Mr. W. M. Johnston, of Chicago, has gone to Mexico, where he will spend several weeks at his silver and copper mines in Chihuahua.

Dr. F. W. Ihne has returned to Chicago from Mexico, where he has been looking up a large copper property in the interest of Chicago people.

Mr. Wm. M. Courtis, mining engineer, of Detroit, Mich., has gone to Arizona on professional business, and can be reached until December 6th at Phœnix.

Mr. J. Rogers Maxwell, President of the Central Railroad of New Jersey, and of the Lehigh & Wilkes-Barre Coal Company, is making an inspection of the properties of these companies.

Mr. Geo. D. Milligan, president of the American Development Company, of Chicago, has returned to Chicago from a six weeks' trip to some of the company's mines in Washington and British Columbia.

Mr. C. W. Thompson, of Malone, N. Y., has been in Chicago for the past two weeks, where he has been in conjunction with Mr. O. O. Hill placing orders for mining machinery at their mine in Bluefields, Nicaragua.

Mr. O. O. Hill, of Bluefields, Nicaragua, has been in Chicago for a couple of weeks. Mr. Hill has a gold property in Nicaragua, and while in Chicago he left an order with the Gates Iron Works for a 10-stamp mill, and also purchased a sawmill for cutting timber for use in his mine. Mr. Hill has returned to Nicaragua.

OBITUARY.

William T. Smith, a well-known retired coal operator, died suddenly at his home in Shamokin, Pa., on November 20th, aged 75 years.

August Shott, foreman of the Poorman mine, Silver City, Idaho, was killed on November 14th. He was climbing an incline near an old working when the water burst through and he was carried down by the rush of debris. He never recovered consciousness.

SOCIETIES AND TECHNICAL SCHOOLS.

Massachusetts Institute of Technology.—The Trustee of the Lowell Institute has established, under the supervision of the Institute of Technology, Free Courses of Instruction in literary, scientific, and technical subjects. The conditions of attendance on these gratuitous courses are as follows: 1. Candidates must have attained the age of 18 years. 2. Their applications must be made in writing, addressed to the Secretary of the Institute (with stamp for reply), specifying the course or courses they desire to attend, mentioning their present or prospective occupations, and, when the course is of a nature demanding preparation, stating the extent of their preliminary training. As the number of students in each class is necessarily limited, applications should be made not less than one week before the first lecture of the course desired. The detailed programme of these courses for the present year shows a variety of subjects; we note especially the following:

IV. General Chemistry of the Non-Metallic Elements. Twelve lectures by Associate Professor T. E. Pope, on Tuesdays and Fridays, at 7:45 p. m., beginning November 5th—Room 35, Walker Building.

V. Steam Boilers: Steam Engine Indicators and Cards; Valve Gears and Valve Setting. (Course arranged especially for engineers.) Twelve lectures by Assistant Professor E. F. Miller, on Mondays and Thursdays, at 7:45 p. m., beginning November 7th—Room 27, Rogers Building.

IX. Metallurgy of Copper. Twelve lectures by Associate Professor H. O. Hofman, on Tuesdays and Thursdays, at 7:45 p. m., beginning December 3d—Room 36, Rogers Building.

XVI. The General Chemistry of the Metallic Elements. Twelve lectures by Assistant Professor F. L. Bardwell, on Mondays and Wednesdays, at 7:45 p. m., beginning February 3d—Room 35, Walker Building.

XVII. The Technology and Analysis of Oils. (Illustrated by experiments and with the lantern.) Twelve lectures by Assistant Professor A. H. Gill, on Mondays and Thursdays, at 7:30 p. m., beginning February 3d—Room 23, Walker Building.

XIX. Organic Chemistry. Twelve lectures (with experiments). By Assistant Professor A. A. Noyes, on Tuesdays and Fridays, at 7:45 p. m., beginning February 4th—Room 35, Walker Building.

Alabama Industrial and Scientific Society.—The regular fall meeting of this society was held in the rooms of the Commercial Club, Birmingham, on Friday afternoon, November 22d. The following new members, whose names were approved by the council, were balloted for and elected: J. R. Harris, Birmingham; Gordon Robinson, Birmingham, and Wm. M. Brewer, Heflin. Some discussion as to the advisability of inviting scientific men from other districts to deliver lectures, in connection with the regular meetings, was had, which resulted in the adoption of a motion proposed by Dr. Phillips, that Mr. John Fulton be invited by the secretary to read a paper on "Recovery Coke Ovens, and Their Adaptability to the Birmingham District" at the next meeting of the society. The following papers were read and discussed: "Mobile Point will be the Deep Water Harbor of the Gulf of Mexico," by G. D. Fitzhugh, Birmingham; "Alabama Barite, or Heavy Spar," by Henry McCalley, Assistant State Geologist, Tuscaloosa, "Alabama's Resources for the Manufacture of Portland Cement," by Dr. Eugene A. Smith, State Geologist, University; "The Value of the Raw Materials in Iron Making," by Dr. Wm. B. Phillips, Birmingham; "The Pig Iron Market, its Extent, and How to Improve It," by James Bowron, Birmingham. T. H. Aldrich, Birmingham, related his experience during the past few months in prospecting for gold in the counties of Cleburne, Randolph and Tallapoosa. The speaker drew attention to the different belts of gold-bearing ore which he had visited, and gave the results of several assays he had obtained. His conclusions, based on the results of his work, he stated as being that there were some very extensive bodies of low-grade ore in those sections of the State, which in his opinion would warrant development, and that a movement would be made by capital in the near future to effect such. He also drew attention to the occurrence of several thin veins of high grade auriferous quartz in the vicinity of Arbacoochee. The president requested Dr. Phillips to prepare a paper to read at the next meeting on the subject of "The Relative Value of Dolomite and Calcite as a Form of Flux, Especially as to their Value for High Sulphur Coke and Effect on Silicon in Iron."

Dr. Phillips made some interesting remarks on his recent experiments in concentrating Red Mountain ores, saying that a new machine had been purchased and put in place with a capacity of treating 80 tons of ore daily, and would be in operation shortly.

A motion made by T. H. Aldrich was adopted to appoint the president, secretary and Dr. Phillips as a committee to arrange for compiling statistics monthly, commencing in 1896, of the mineral and iron industries in the State for circulation among the technical journals, and for a permanent record to be preserved by the secretary. The society then adjourned.

INDUSTRIAL NOTES.

The Sturtevant Mill Company, of Boston, recently supplied a number of crushers to phosphate companies for grinding.

Chapman & Hocking Coal Company, of Meyersdale, Pa., have ordered 50 coke cars from the South Baltimore Car Works.

The Norfolk & Western Railroad Company has ordered 500 box cars from the Ensign Manufacturing Company at Huntington, W. Va.

The Midvale Steel Works, Philadelphia, were recently visited and inspected by the United States Board of Ordnance and Fortifications.

Kaufman & Sons have begun work on a large fertilizer plant near Milwaukee, Wis. There will be two buildings, a factory and a storehouse.

The Ensign Manufacturing Company, Huntington, W. Va., is building 100 dump-bottom coal cars, of 60,000 lbs. capacity, for the Chesapeake & Ohio Railroad.

It is reported that a blast furnace is to be built at Erie, Pa., by the Carnegie Steel Company; but no definite statement regarding the plan is obtainable at present.

The Utah Guano Company is having considerable success, it is stated, in putting upon the market the fertilizer prepared from the guano obtained from Gunnison Island, in Salt Lake.

The Northwestern Fertilizer Company will rebuild its plant near Chicago which was recently burned down. The new structure will be of brick and will contain a full eqipment of machinery.

Excelsior furnace at Ishpeming, Mich., was started up last week. It has a capacity of 60 tons a day of charcoal iron. It is the only furnace at present in operation in the Northern Peninsular of Michigan.

The Kelly & Jones Company, of Greensburg, Pa., recently received a heavy order for brass goods from Johannesburg, in the Transvaal. This is the third order of the kind which this company has filled.

The Union Metallic Cartridge Company, Bridgeport, Conn., has again added to its already large system of industrial railways of the Hunt type; also the Yale & Towne Manufacturing Company, Stamford, Conn.

The Stillwell-Bierce & Smith-Vaile Company, of Dayton, O., manufacturers of the Victor turbine water-wheel, Smith-Vaile steam pumps, and other machinery, have declared a dividend of $2 on the preferred stock, payable December 2d.

Machinery having sufficient capacity to crush 400 tons of stone daily is being placed in position at the Colebrook furnace limestone quarries, near Lebanon, Pa. The introduction of the machinery will reduce the number of men employed in the quarries.

The Carnegie furnace, which was built five years ago at Johnson City, Tenn., to work ores from the mines at Cranberry, N. C., was sold at receiver's sale in Knoxville, Tenn., November 22d, and was bought in for $20,000 for account of Alfred Sully, the chief stockholder.

A syndicate of capitalists, represented by F. R. Phillips, of Philadelphia, has decided to establish in Reading, Pa., a tin plate manufactory on a large scale. They will include in the plan open-hearth as well as Bessemer furnaces for the manufacture of steel to be rolled into plates.

Buffalo Iron Company, of Nashville, Tenn., is the title of the new company which has bought the property of the old Southern Iron Company. Mr. R. Ewing, who was recently receiver, is president of the new company. One furnace will be operated at present on charcoal iron.

The Fairfield Copper Company, Monroe, Conn., is to be placed in the hands of trustees on the petition of Lewisohn Brothers, of New York, the condition of the estate being represented to the court as unsound. The property is mortgaged for $50,000, and the trouble is said to be due to mismanagement.

The Bone Hill Consolidated Phosphate Company was recently organized at Portland, Me., for the purpose of mining, treating and manufacturing phosphate of lime. The capital stock is $1,000,000, and the officers are: Louis E. Lovejoy, Melrose, Mass., president; Thomas Clary, Norwood, Mass., secretary.

Stedman's Foundry and Machine Works, of Aurora, Ind., are full of work, and have recently furnished crushing and grinding machinery and pulverizers to the West Coast Fertilizer Works at Los Angeles, Cal., the Jarecki Chemical Company at Sandusky, O.; the Northwestern Fertilizer Company at Chicago; the Russia Cement Company at Boston, Mass., and others.

The Kalamazoo Railroad Velocipede and Car Company, of Kalamazoo, Mich., recently shipped several inspection velocipede cars to Russia. Six of its new railway safeties are being shipped to Australia, together with 25 steel velocipedes. Six steel velocipedes for 5 ft. 6 in. gauge go to Buenos Ayres. This is an indication of a favorable reception of these machines by foreigners.

The Bethlehem Iron Company at Bethlehem, November 25th, received news of the award of a contract for nearly 1,200 tons of armor plate for the new Russian battleship "Rostislav." The contract will have to be completed by the fall of next year. There were 14 bidders for the work. The contract represents nearly $600,000 and will keep the ordnance works employing skilled workmen throughout the winter.

The United States Export Association of New York has been incorporated to encourage the consumption of American products in other countries by combining the influence of American producers, manufacturers, bankers and merchants; capital, $500,000, and directors Francis B. Thurber, A. P. Mitchell, John C. Boulton and Charles H. A. Dougherty, of New York City, and Erastus N. Coot, of Brooklyn.

The American Steel Foundry Company, St. Louis, has recently made several cast steel frames for six-wheel and eight-wheel locomotives for the St. Louis Southwestern Railroad. These frames were designed by the road's superintendent of motive power, R. M. Galbraith, who, in common with other railroad men, is experimenting with cast steel as a substitute for iron frames, with a view to reducing the expense of construction.

TRADE CATALOGUES.

"Measuring Water" is a reprint of an address made by Mr. Clemens Herschel before the students of the Rensselaer Polytechnic Institute at Troy, and now reprinted by the Builders' Iron Foundry, of Providence, R. I., the principal object of this reprint being the careful description given in the address of the Venturi water meter. The theory and methods used and the practical results obtained with that instrument are very fully described. The pamphlet is illustrated by sections and views of the Venturi meter and register, and accompanied by tables and by the formulæ upon which its construction is based.

"Power Pumps and Their Application" is a new edition of the special catalogue issued by the Goulds Manufacturing Company, of Seneca, Falls, N. Y., illustrating and describing the various forms of power pumps made by that company. Of these there is a considerable variety adapted for varied purposes and positions, and having a wide range of power and application. Particular notice is called to the triplex power pump, which is built on the principle that a continuous action of the parts produces a constant flow of fluid and resulting high efficiency in practice. While more expensive than the simple single-cylinder pump, it gives much better results. With regard to power pumps generally, it is conceded by most engineers that there is greater economy of fuel obtained by the use of a power pump driven by a steam engine than with a direct-acting steam pump, while the power pump lends itself also readily to the use of the electric motor, the gas engine or any other convenient form

of driving. Among the many forms of pump shown in this catalogue we note especially a triplex pump, arranged for elevating water to a height of 350 ft., and also a horizontal pump, driven by an electric motor and mounted on a truck upon which it can readily be transported from point to point, as required in a mine. The great variety of power pumps and their application can best be understood after studying this catalogue.

MACHINERY AND SUPPLIES WANTED.

If any one wanting machinery or supplies of any kind will notify the "Engineering and Mining Journal" of what he needs he will be put in communication with the best manufacturers of the same.

We also offer our services to foreign correspondents who desire to purchase American goods, and shall be pleased to furnish them information concerning goods of any kind, and forward them catalogues and discounts of manufacturers in each line.

All these services are rendered gratuitously in the interest of our subscribers and advertisers; the proprietors of the "Engineering and Mining Journal" are not brokers or exporters, nor have they any pecuniary interest in buying or selling goods of any kind.

GENERAL MINING NEWS.

ARIZONA.

Yuma County.

Harquahala Gold Mining Company.—The report of Manager Robert M. Raymond for September states that the cyanide plant was run steadily during the month, and operations progressed very smoothly. The wire tramway has handled the pulp easily and very satisfactorily. The lumps of slimes and layers of these in the beds gave some trouble, but arrangements are being completed to make the treatment of these more satisfactory. During the month the storage water tanks were moved from the stamp mill to a considerable elevation above the cyanide plant, and a good pressure and supply thus secured for sluicing the pulp from the vats after treatment. The mine water is also pumped to these tanks and used for sluicing. Two men on the night shift sluice out the residues very readily. Sluice boxes from the vats were put in, and a canvas roof put over the ore vats, which keeps them in better condition. The precipitation in the zinc boxes has been very satisfactory. They have been rather crowded and the box intended for the waste solutions had to be used for the stock solutions. Another box will be put in at once, and the low solutions running to waste will first be passed through this. The amount treated and the returns are as follows: Pulp treated, 3,973 tons; assay value of pulp, $4.10 per ton; assay value of residue, $0.78 per ton; proportion extracted according to assays, 81%; according to bullion, 76%; gold precipitated, $12,000; cost of treatment, $5,100; extraneous expenses, $1,100; balance, $5,800. Adding miscellaneous revenue, $300. The net profit for the month was $6,100.

CALIFORNIA.

The California Debris Commission has just granted permits to the owners of the following mines to operate their claims by the hydraulic process: Bobbie Burns mine, near Placerville, El Dorado County; Tiedeman mine, near Georgetown, El Dorado County; Blacklock mine, near Placerville, El Dorado County; Goodhope Mining Company in the Richmond Hill mine, near La Porte, Plumas County; King Sayre mine, near Port Wine, Sierra County; Canada mine, near Port Wine, Sierra County; Pacific mine, near St. Louis, Sierra County; Ferrel mine, owned by the Eureka Lake and Yuba Canal Company, near Columbia Hill, Nevada County; Fred Lewis mine, near Spanish Ranch, Plumas County; Dutch mine, near La Porte, Sierra County; Sailor Creek mine, near Garden Valley, El Dorado County. Permits have also been given to construct impounding dams to the following mines: Martin mine near Placerville, El Dorado County; Plumas Blue Gravel mine, near Nelson Point, Plumas County; Chaparral Hill mine, near Onion Valley, Plumas County; Arctic mine, near Butte Valley, Plumas County; Michigan Hill mine, near Quincy, Plumas County; Jackson Creek mine, near Cromberg, Plumas County; Miocene mine, near Crescent Mills, Plumas County.

W. T. Phipps, manager of the Anti-Debris Association, recently made a tour of inspection among the hydraulic miners in Nevada County. At different points on the south fork of the Yuba River, he says, a great amount of debris is being washed into the stream from mines that are sluicing on an extensive scale. Instead of being torn down by the monitor, the ground is loosened by blasts and washed from the sluices into the river. He found the dam at Moore's Flat already filled with debris beyond the permit limits. A Chinese company is operating the mine under a lease from the white owners. The dam at the Omega mine is completed and is very strong. This mine is also operated by a Chinese company. The North Bloomfield mine is in full operation. The debris is run through an elevator into the settling pool, where most of the slickens is deposited. Everything is carried on under the law at this mine.

Mariposa County.

(From Our Special Correspondent.)

Merced Gold Mining Company.—The new hoisting works at the Louisa mine and the Black Creek dam are almost completed. The site for the new 40-stamp mill is being graded. The engine and hoisting machinery at the Malvina mine is being placed in position. When the cages are set the buckets will be done away with.

Nevada County.

Merrimac Mining & Milling Company.—The Merrimac mine of Grass Valley, which has been under bond to L. P. Goldstone and a few others, has been sold to this company, of which Colonel George M. Stone of San Francisco is the heaviest stockholder. It is understood that the consideration was $20,000.

Placer County.

(From our Special Correspondent.)

Marguerite.—The old Salsic claim has been acquired by this company, and a crosscut is being made on the 250 level of the Marguerite to the Dalsic claim, going about 100 ft. below the Salsic shaft, the ledge between the two mines is 20 ft. wide. These properties are located one-half a mile from Auburn.

San Bernardino County.

(From Our Special Correspondent.)

Messenger.—This mine is in the Pinon district, about 45 miles from Indio. The shaft is down 75 ft. on a 3-ft. vein of free milling ore, which is of high grade.

Siskiyou County.

Steamboat.—It is reported that Mr. A. C. Brokaw, representing a syndicate of Washington capitalists, has signed an agreement with George Smith and Joseph Stephens to buy the Steamboat mine on McAdams Creek for $20,000, payable in four installments of $5,000, the first payment next May.

COLORADO.

Mineral surveys approved by the United States Surveyor General for Colorado, during the week ending November 16th, 1895: Survey No. 9917, Pueblo, Eugenia, Montie and Julian; 9808, Pueblo, Mollie C.; 9932, Durango, Robert Burns; 9727, Pueblo, Gold Flats; 9541, Pueblo, Bodie; 9479, Pueblo, Jones; 9621, Pueblo, Double Standard; 9850, Pueblo, Joe Dandy; 9915, Durango, Wild Flower; 9622, Pueblo, Little Maggie; 9783; Pueblo, Clipper; 9785, Garfield, Socker, Zulu and Bunkum Squint lodes; 9901, Del Norte, Hercules; 9671, Pueblo, Countess; 9722, Denver, Notaway Extension; 9791, A and B, Del Norte, Tunnel Annex lode and Annex Millsite; 9835, Pueblo, Sarrah Rozetta and Fordham lodes; 9845, Pueblo, Little Valley; 9614, Montrose, Bachelor Royal, Bachelor, Aberdeen, Old Admonition and Dick Bland lodes; 9678, Pueblo, Edith May; 9863, Pueblo, Little Joe; 9879, Pueblo, Ram's Horn; 9899, Leadville, Witch Hazel; amended work—G. L. O; 6936, amended, Garfield, Last Chance; 3740, amended, Leadville, Trueworthy; 4270, amended, Leadville, Mary and Edith lode; affidavit of $500 expenditure issued, 9478, Pueblo, King Solomon, placer; 9306, Pueblo, Late Acquisition; 6263, Leadville, Spot Cash.

Clear Creek County.

(From Our Special Correspondent.)

Albro.—At one time this mine located at Idaho Springs, was a producer of high-grade ore. For the past two years the middle adit has been driven into the mountain 600 ft. An ore chute has opened out. The streak is averaging 16 in. of solid mineral. Smelter returns show it to be running $80 a ton.

Big Dipper.—The Chicago owners have placed a force at work in cleaning out the old drifts with the intention of resuming operations.

Crown Point.—In the lower level of this Idaho Springs property the streak has opened out to 5 ft. wide on the east and 3 ft. on the west. It is all concentrating, and the mills are treating 85 tons a day.

Earl Kent.—This property is again working through the lower adit. The concentrating streak, worth from $8 to $15 a ton, is 2 ft. wide.

Freeland.—The people who have been working this mine during the past nine months have ceased operations because the owners would not extend the lease three years. In the time the mine has been worked this year it has produced $25,000.

General Thomas.—In drifting from the lower level of this mine located at Idaho Springs, an average of 30 in. of $10 mill dirt is showing. The Allan mill is running night and day on this ore.

Gladstone.—Idaho Springs parties have taken a bond and lease on this property and are preparing for active work. The adit is in 500 ft., and the winze is down 90 ft. In the breast of the adit a streak of copper and lead is showing.

Kelly.—This mine is being opened up after an idleness of 20 years. In the old tunnel the quartz streak is valued at $30 a ton.

Newton.—The mine is now worked almost exclusively by lessees, and recently the mineral in a number of the levels has greatly improved in value. The third level is being driven by contract.

Fremont County.

(From Our Special Correspondent.)

Economic Reduction Works.—Considerable alterations are being made at this plant, at Florence, under the superintendency of Mr. N. Anderson, and the new machinery is being put in place for working by the cyanide process, the large plant having been leased by the American Cyanide Gold and Silver Recovery Company. In both the reduction works oil will be used for fuel, the Metallic Extraction Company's works having used it already, ever since they started up last spring, with good results.

Metallic Extraction Company.—An addition is being built to the large cyanide plant of this company at Florence. The present capacity is 150 tons per day, and the plans are being made for the doubling of this, so that in the course of a few months 300 tons daily will be treated. The success of this plant, built and managed by Mr. Philip Argall, has been very great. Besides the above improvements, residences for the officers are being built. Within a few days a post office, called Cyanide, will be established at that point.

CONNECTICUT.

Hartford County.

Whigville Copper Mine.—It is announced that the company, which was organized at Bristol three years ago to operate the copper mine at Whigville, has decided to resume work again in the mine. The work was suspended about a year ago because of lack of capital. The pit has since filled with water. It is intended to start pumps in the mine in a few weeks and continue work.

FLORIDA.

Hernando County.

Messrs. Fulton & Alford recently sold 40 acres of phosphate land near Fitzgerald to Mr. R. Buttgenbach, of Brussels, Belgium. The price is said to have been $25,000. The purchaser intends to put up a plant and work the property for hard rock.

Levy County.

Camp Phosphate Mining & Manufacturing Company.—This company is putting in new machinery at its works near Albion. It is not known, however, when the works will be started up.

Polk County.

Bone Valley Phosphate Company.—This company's works near Bartow are now running steadily, and making regular shipments of phosphate rock.

Terraceia Phosphate Company.—It is reported that this company is to be organized, and that its works at Pebbledale will be started up as soon as the organization is completed.

IDAHO.

Idaho County.

(From Our Special Correspondent.)

Elk City District.—The Idaho Company has closed its hydraulic elevator on American Hill until spring. It was stated some weeks ago in these columns that the Relief Mill was in operation, but your correspondent was misinformed. The mill will not be started up until spring; although everything has been in readiness since October 24th.

Florence District.—Active work is progressing on a number of claims in this camp, and will continue all winter. It is estimated that over 500 tons of good ore will be taken from the different claims and crushed during the winter.

Warren District.—A Boston company has taken a bond on the Secesh Placer claims, and has also bonded the Rescue mine and adjoining claims on the same vein.

(From an Occasional Correspondent.)

In the Dixie (old placer) district quartz prospecting is making a very favorable showing, the ledges showing 2 ft. to 4 ft. The character of the country is such as to make a good opportunity for a custom mill there—the development justifying it—as the properties are in close proximity, and wagon roads easy to make.

The Cleveland mill in the Elk City (old placer) district is ready to run with the spring water, and work on other properties shows good developments. The need of the country is transportation facilities, men with money, and more development on quartz properties.

Lemhi County.

Columbia Gold Mining Company.—This company has opened Chicago offices in the Chamber of Commerce Building. Mr. H. T. Petersen is secretary of the company.

Shoshone County.

Consolidated Tiger & Poorman.—This company has now 125 men on the payroll, of whom about 70 are working directly in the mine, some taking out ore and others working on developments, says the "Cœur d'Alene Miner." A crosscut is being run on the 1,100-ft. level to connect the vein with the bottom of the Tiger shaft, which are about 75 ft. apart on that level. This has been carried about 15 ft. so far. The ore is coming from the 900 and 1,000-ft. levels. The Tiger concentrator has been started up again. One of the first improvements will be the building of a tramway to connect the Tiger hoist with the ore bins at the Poorman concentrator. This will be about 250 ft. in length and will require 30,000 ft. of lumber in its construction. There will be two car tramways and an ore conveyor. This is necessitated for the reason that the Tiger shaft will henceforth be used solely for the entire consolidated property, and the Poorman will concentrate all the ore, except that the Tiger mill may be used at times when there is an abundance of water. In order to render the Poorman concentrator still more efficient there will be added to the machinery now in use a large set of crushing rolls, six Frue vanners, two coarse jigs and another round table. The intention of the management is not so much to increase the capacity of the plant as to make a closer saving of the ore. The tailings will be recrushed and ground finer previous to working over again on the vanners and the slime tables. The capacity of the concentrator will not be less than 300 tons per day. There will also be some extensive

changes made in the hoist. When the tramway mentioned above is completed the Poorman hoist will be taken over to the Tiger shaft and set up. Manager Culbertson states that they have rendered the water supply more permanent by the dam which they have built at the head of Canyon Creek. This is 350 ft. in length and 35 ft. high and gives a large storage capacity, which can be drawn upon as is required. One of the most encouraging features connected with the future working of the consolidated property is the large reserve of water power coupled with the fine electrical plant of the Poorman. The latter is running the Poorman compressor for the use of the machine drills in the Tiger mine, connection having already been established. There are still 20 men employed on the dam in question, but the work there is now nearly completed. The water power capacity on the Tiger is being still further increased by the addition of a 16-ft. Pelton water wheel of a new pattern. This will be used in connection with the Poorman hoist on the Tiger shaft. The hoist will be provided with hydraulic clutch, hydraulic brake and hydraulic valves, and in every way thoroughly equipped for the heavy work which it will be required to perform. The improvements and changes noticed will require some months for their completion, so that the Poorman concentrator will not be in operation for quite a while. In the meantime some of the working force, the laboring men particularly, will be reduced in numbers. As there is nearly 300,000 ft. of lumber to be worked up into the improvements noted above it will require quite a gang of carpenters for some months yet.

Standard Mine.—This mine has now 100 men on the payroll, about 23 of whom are working in connection with the lower tunnel. This is now in something over 500 ft., and is being driven ahead as rapidly as possible, with three eight-hour shifts of six men each. Two steam drills are employed in the breast of the tunnel. It is expected that 10 months will elapse before the vein will be reached. The air compressor plant consists of a Reynolds-Corliss engine 14 × 36, with a capacity of seven machines, and manufactured by the E. P. Allis Company, of Milwaukee. The boilers, built by the same firm, are of 125 H. P., and carry 125 lbs. pressure. The operations at the mine continue with regularity—12 or 13 cars of ore being sent down to the concentrator every day. The ore is of exceptionally high grade, and the expense of operation is light, no hoisting or pumping being required. Its production now is limited by the capacity of the concentrator.

Last Chance Mine.—A new 20-H. P. motor has been put in the Last Chance mill in place of a 10-H. P. motor previously employed, says the "Cœur d'Alene Miner." They will now be independent of water to run the mill, although they will still use it when there is a sufficient quantity. Manager Sweeney has just put in four Frue vanners, five jigs and a set of large rolls, 16 × 30. These changes will increase the capacity of the concentrator to about 200 tons. In the mine there are 90 men at work, about 25 of whom are on development. The new station in the upper tunnel is nearly completed. The hoist will be moved there in a few days. The carbonate ore is holding out well and regular shipments are being made.

Frisco Mine.—After several months devoted to making improvements und to the erection of labor-saving machinery the Frisco mine is now under full headway again, the concentrator running on both shifts. There are now 105 men on the Frisco pay-roll, and this includes a few who are finishing up some outside work, such as building a powder magazine, fitting pipes and so forth. The large new air-compressor plant, built by the Rand Drill Company, is in full operation, supplying power to all parts of the mine. The development work at present under way consists of two drifts and two large upraises. No sinking will be needed for some time. The mill has been fitted for heating with steam throughout. The scarcity of water has been only slightly felt at the Frisco. Fred Hieber, recently from Montana, has entire charge of the mill. Tom Jay is superintendent of the mine, and Norman Ebley holds the position of master mechanic.

Owyhee County.

De Lamar Mining Company, Limited.—The following is the return for the month of October: Crushed during the month 3,825 tons; bullion produced in the mill, $70,325; estimated value of ore shipped to smelters, $8,500; miscellaneous revenue, $840; total produce, $79,665. The total expenses were $41,760, leaving as profit for the month of October a balance of $37,905.

Morning Star.—A deposit of very rich ore is reported to have been struck on the 400-ft. level of this mine at Silver City. The extent is as yet unknown.

Poorman.—A Boise despatch reports the closing down of the mine at Silver City owing to the censure of the management by the coroner's jury which inquired into the cause of the death of Foreman Shott, who was killed in the mine November 15th by debris from old workings falling upon him as he was climbing up an upraise. Manager Grothe has submitted to State Mine Inspector Dewey a certified copy of the evidence at the inquest and requests that the most thorough investigation be made. The evidence taken in the case shows that the raise was being made in the Belle Peck tunnel for the purpose of tapping old workings which the only obtainable charts showed to be about 200 ft. above. At a point 60 ft. above the Belle Peck an old drift was struck which the charts did not show. At the time this drift was opened there was a rush of water in which a miner was injured. The upraise was timbered and divided into three compartments, the middle one of which was a manway. After this work was finished the work of clearing the old drift was begun. This drift was caved in at some little distance both ways from the point where the raise intercepted it. At times as work progressed it was noticed that the debris would swell and start to run. Great care was consequently exercised to prevent a disaster. At the time of the accident by which Foreman Shott lost his life, James Goldesworthy was working in the drift. Shott started to come up the manway. He called to Goldesworthy to know if all was right. It was just at that moment that the latter noticed the ground swelling. He called to Shott that it was coming and sought refuge in the other end of the drift. Shott is thought to have hesitated a moment and either fell down the raise or was carried down by debris that quickly poured in.

INDIANA.

Clay County.

A press despatch from Brazil says that a mass-meeting of the miners of the block-coal fields has been called. The meeting is brought about by the strike of the miners at the No. 1 shaft of the Brazil Block-Coal Company, who went out recently because the company stopped the system of paying $1.75 a day and offered 25c. a ton. This is the first block coal mine to put in machines for mining coal, and the miners fear that they will be adopted generally throughout the district. The object of the meeting is to decide upon a scale for machine mining in the district.

IOWA.

Dubuque County.

Floyd.—It is reported a good find of mineral has been made in the old Floyd lead mine on the Simplot ground in West Dubuque. The mine is operated by Golthor, Hosford, McPoland & Cobb.

Ahern.—This mine now employs besides engineers and superintendent, a force of 72 men on three shifts. The mine, says the Dubuque "Telegraph," is yielding heavily, and produced 40,000 lbs. of lead ore one day last week. The daily average is said to be only a little below this.

KANSAS.

Southwestern Oil-fields.—Messrs. J. M. Guffey & John Galey, well-known oil operators, have sold all their holdings in the Southwestern Kansas oil-fields to the Forest Oil Company, an affiliating branch of the Standard Oil Company. The consideration is said to have been $300,000. The deal, which is regarded as an important one, embraces leases on 300,000 acres of territory located in Wilson, Neosho, Montgomery, Chautauqua and Allen counties. There are 50 producing oil and gas wells, having a daily production of 250 bbls., and a number of drilling wells; iron tankage with a capacity of 140,000 bbls., with a gathering pipe line system extending throughout the field, and all the equipments necessary for successfully carrying on the producing business. The purchase also included 70,000 bbls. of crude oil stored in iron tanks. Guffey & Galey were attracted to the Kansas oil-field early in 1893. Investigation favorably impressed them, and after securing about all the territory within reach, they began developments and found paying wells at every point. Their production from the start was profitable, but the railroad companies refused to make satisfactory concessions in the matter of transportation rates, and on account of the difficulty in getting the product to market, developments were not pushed. They found it was not only necessary to erect refineries, but better and cheaper transportation facilities were much needed. They found the Standard Company in position to take up the business where they left off, having distributing stations throughout the West. The oil is found at a depth of from 800 to 900 ft., and while it has an asphalt base, it also has a large percentage of illuminant, and some paraffin, and shows 36° gravity. The work of developing that country is now likely to be carried on very actively.

Leavenworth County.

Home-Riverside Coal Mining Company.—All the differences between the miners and this company have been adjusted. The company agrees to restore the schedule of wages paid for mining, brushing, day labor, etc., that was in effect at its No. 1 and No. 2 plants on May last, which was on a basis of 80c. per ton for mine run coal; allow the men at each plant a check weighman, to be paid at the expense of the miners by running a check number, the men to select such weighman from their own number for each plant.

MICHIGAN.

Copper.

Calumet & Hecla Mining Company.—This company has declared a dividend of $5 per share, payable December 18th. This is the fourth dividend for this year, making a total of $20 per share, or $2,000,000 in all, paid in 1895.

The miners working in this company's Red Jacket shaft have received an increase of wages on account of the conditions under which their work is performed. The shaft is down over 4,700 ft. perpendicularly, and on this account the air is very hot. The acid water which percolates through the rock is also very destructive to clothing and footwear.

Franklin Mining Company.—The burning of the engine and boiler house at the mine will not cause any serious delay, it is stated. The loss is fully covered by insurance.

MONTANA.

The Helena Land Office recently received a decision from the Secretary of the Interior, involving the title to three mining claims situated north of the Big Butte and known as the Dorcas, Priscilla and Georgiana lodes, which are claimed by Thomas Ferguson et al. and Magnus Hansen et al. Ferguson had entered a protest against the entry of Hansen, on the ground that the law in regard to posting notices had not been fully complied with. The Helena office sustained the protest, and an appeal was taken to the commissioner. The latter reversed the Helena office, and then an appeal was taken to the Secretary of the Interior. The Secretary confirms the decision of the Helena office. The application for patent was filed in the Helena office, November 3d, 1892, by Magnus Hansen and John C. Paulson for the Priscilla, Georgiana and Dorcas lode claims. On January 13th, 1893, Thomas Ferguson et al., claimants of the Happy New Year, and Thomas P. Byrne et al., claimants of the Lucky Tom, filed a protest against the entry by Hansen, alleging prior location of their claims; that the notices of Hansen were not posted in a conspicuous place and that the necessary amount of work had not been done. In his decision the Secretary says:

The return of the Surveyor-General shows that at the time the survey was made, October 22d, 1892, the work on these lodes was as follows: On the Priscilla, a discovery shaft 4 × 7½ ft., 7 ft. deep; on the Georgiana, a discovery shaft 4 × 6 ft., 8 ft. deep; on the Dorcas, discovery shaft 5 × 7 ft., 6 ft. deep, and shaft No. 2, 4 × 5 ft., 2 ft. deep. So that it will be seen that on each claim some work had been done. The evidence shows that there were no windlasses or houses or any other improvements or conspicuous place or places on the claims. The ground is shown to be broken and mountainous, with rocky hills and many large boulders scattered over the surface. There are two or more traveled roads on the land, running in different directions. It is not definite as to whether they traverse each claim or not, but they are roads that are constantly traveled in reaching the villages or mining camps surrounding Butte City, to which the land in controversy is in close proximity. The plats and notices required to be posted were tacked in open boxes about 2 ft. square and 1 ft. deep, and were put upon the ground with rocks around them for their support and on top to keep them in place. On the Priscilla this box was placed 250 ft. northwesterly from the southeast corner. Between the box and the discovery shaft was a ridge about 50 ft. high, the discovery shaft being about 1,000 ft. westerly from where the box was placed. On the Georgiana lode the box was placed about 200 ft. west of the discovery shaft, on the south side of a rocky hill or butte, about 40 ft. from the top, which was covered with boulders, some of them 4 ft. high, some of which were in front of the box. The box on the Dorcas was about 150 ft. south of the discovery shaft, on the side of a hill on level ground, rising a little from the shaft. There were large rocks or boulders all over the ground in this vicinity. Neither of the notices were posted at either of the discovery shafts, nor were they placed on or near either of the traveled roads. They were not fastened on trees or otherwise placed at an elevation above the level of the ground so that they could be seen by those going over the ground, or so that they might not be obscured by the snow that is shown to have fallen in that region at the season of the year when they were posted. On the contrary, I am strongly impressed with the belief that there was a studied effort on the part of the applicants to avoid a compliance with the law in posting the notices in a conspicuous place on the land. It is difficult, perhaps, to lay any general rule as to what should be construed to be a conspicuous place on a mining claim. It is a matter of common knowledge that they are generally located in mountainous regions, where from any given point but comparatively a small portion of the claim may be seen. But there must, from the very nature of things, be an initial point, both physical and local in every mining claim, and that is the discovery shaft. Without this there can be no legal location, as all rights of every nature are based upon a discovery of mineral. In the absence of all other improvements, as in this case, it would seem perfectly natural that any one going upon a mining claim for any purpose for which the government would be interested, would go to the discovery shaft. It would seem as if this initial point would be the first to attract the attention of any one investigating the land, and in the absence of all other improvements, would certainly be the most conspicuous on the claim. In digging a shaft a dump is necessarily created which shows the handiwork of man. It may be located in an obscure place. This is true, yet, nevertheless, if it be the only improvement on the claim, it is certainly, in contemplation of law, and as a physical fact as well, more conspicuous for the purpose of conveying notice to the world than boulder-drifted hills, away from traveled trails or roads, would be. I do not think there was a compliance with the statute by the applicants in posting the notice on the claim, and, therefore, reverse the commissioners' decision, and confirm that of the local office.

Deer Lodge County.

McCauley Gold Mining Company.—Work has been resumed at this company's mine near Crevasse, in charge of Richard Blackstone, late of Deadwood, S. Dak., who has been appointed superintendent.

Jefferson County.

Elkhorn Mining Company, Limited.—A circular just issued from the London office of this company states that development work has been continued for some months past in the lower levels of the mine, but Mr. C. A. Molson, the manager, has been forced to the conclusion that the ore bodies which proved so productive in the upper levels have become too narrow and too low grade to permit their profitable working or to justify further exploration of the mine in depth. The reserve of ore in sight represents about three or four months' working at the present rate, and after that the Elkhorn must be considered as exhausted. It has, however, been an excellent investment, as it has returned to the stockholders a total of about 150% in dividends, which is equivalant to the repayment of the whole capital with interest at the rate of 10% a year, without taking into account the present market value of the shares. In view of this state of facts the directors have been looking for a new field of operation where the assets of the company may be invested, and have negotiated with the owner of some valuable silver-lead mines, on which they have obtained an option. These properties are situated on East Fryer Hill, at Leadville, Colo., and comprise the unexpired leases of 3 years and 4½ years respectively of two contact lode claims, known as the Fitzhugh and the Kennebec, of a combined area of about 13 acres, together with seven mining claims adjoining, comprising about 50 acres and known as the Evans-Donelly group. These properties are close to many well-known and valuable ones, especially those controlled by the Union Leasing and Mining Company, of Leadville.

The Fitzhugh mine has a fine equipment capable of raising 500 tons of ore per day, and the development has proved the existence of ore bodies of great value. The option, which extends to December 31st, 1895, is for the purchase of the leases of the Fitzhugh and Kennebec, and of the Evans-Donelly group in fee for a sum equivalent to £186,000. Since the option was taken development has shown the existence of mineral to such an extent that the properties have largely increased in value. The present manager, Mr. T. Kyle, who has had much experience in the district, states that the properties can be put in condition to ship an average of 200 tons a day, and that they can be made to net a large amount yearly for many years to come, and independent opinion has also been obtained from Capt. J. W. Plummer, of the De Lamar mine, who approves the property. In order to make the proposed change the directors have adopted a plan to be considered at a special meeting of the company, and which is in substance as follows: The Elkhorn Mining Company is to be liquidated, and a new company to be formed to be called the New Elkhorn Mining Company, with a capital stock of 300,000 shares of £1 each. Of these shares, 87,500 will be priority shares which will be entitled to a cumulative preferential dividend of 100% before any dividend is paid on the ordinary shares. These priority shares will be offered in the first instance pro rata to the stockholders of the Elkhorn Mining Company at par, payable 25% on application, 25% on allotment, 25% in one month, and 25% in two months after allotment. Of the ordinary shares 35,000 will be issued to the liquidator of the old company in payment of its assets, thus permitting a distribution of one share in the new company for each five shares now held in the old. The remaining 177,500 shares will be allotted to the vendor on account of the purchase of the Leadville property. He will also receive the sum of $86,000 in cash. The assets of the old company, including cash on hand are estimated at about $25,000 which will furnish a sufficient working capital. Prompt action is required by the company in order to take advantage of the option of the properties, which, as stated above, will expire on December 31st next.

Wickes.—This mine, at Lump City, has been bonded to John Keetsch and Thos. J. Houlihan, the bond being in the sum of $8,000, and running 18 months. It is the intention of Messrs. Keetch & Houlihan to sink 100 ft. on the property at once, and preparations for doing the work are now being made.

Park County.

Montana Coal and Coke Company.—The men employed in this company's mines at Lake are on a strike, demanding an increase in the wages of the outside men and a decrease in the extra weight of coal required of the miners to make up for dirt. The mines are closed down for the present.

Silver Bow County.

Gray Rock & Wild Bill.—In Butte, November 22d, the Anaconda Mining Company filed a suit for $375,000 damages against the Butte & Boston Mining Company for ore alleged to have been extracted from the Wild Bill through the Gray Rock workings. The Wild Bill is located north of the Gray Rock and Bell and the Anaconda people have owned a three-fourths interest in the ground since June 30, 1895. The ore, it is alleged, was taken through the East Gray Rock workings from the western portion of the Wild Bill claim, the vein of which dips into the Grey Rock and is the same vein upon which the Gray Rock owners have run the 1,000, 1,100 and other levels extending westerly from the north crosscut running from the East Gray Rock shaft. The complaint recites that since the first day of July the defendants have extracted ore valued at $500,000, an undivided three-fourths interest of which was the property of the plaintiff, to the damage of the plaintiff in the sum of $375,000. A restraining order was issued returnable November 30th.

Boston & Montana Mining Company.—This company has contracted with the Westinghouse Electric and Manufacturing Company for two 1,200-H. P. generators, costing $25,000 each. No larger electric machines were ever built, and they should be in working operation by spring.

Britannia.—A suit was tried last week involving the ownership of this mining claim near Butte. The present owner is Lee Mantle and the suit was brought by P. A. Largey, who claimed it on the ground of prior location, while William Owsley appeared as intervener, also alleging a claim to the property. The jury decided, however, that Mr. Mantle was the owner of the claim, both on account of prior location and development, and that neither Largey nor Owsley had any claim to a share.

NEVADA.

Storey County—Brunswick Lode.

Following is an extract of the latest weekly official report: On the 11th inst., work was resumed in shaft No. 1, and it has since been sunk for a distance of 7 ft. on the incline, passing through quartz giving low assays; total length, 182 ft. The hoisting works and machinery at shaft No. 2 will be ready so that operations can be resumed in a few days. East crosscut No. 1 in the Savage Company's tunnel, which was started at a point 400 ft. from the mouth of the tunnel, has been extended 25 ft. through porphyry, clay and quartz; total length, 59 ft. The St. John tunnel has been cleaned and repaired for a distance of 144 ft; we have now about 9 ft. of new ground to run through in order that the connection may be made with shaft No. 1. In the Occidental Consolidated mine on the 650 level in the northwest crosscut at a point 270 ft. from the main west drift they have struck the west ledge and it shows about 5 ft. of fair ore. Have started a drift in the ore north.

Storey County—Comstock Lode.

Following are extracts from the latest weekly official letters of the mine superintendents:

Alpha Consolidated.—The southwest drift from the west crosscut, at a point 36 ft. from the south lateral drift on the 450-ft. level, is in 15 ft. The face is in quartz giving assays of from $5 to $20 per ton in gold.

Chollar.—In the north drift on the fifth floor of the stope above No. 2 crosscut, 450 level, we are preparing to stope north on some pay ore. Saved and shipped to the Nevada mill 24 tons of ore. Average battery assay, $32.70 per ton.

Consolidated California and Virginia.—On the ninth floor, which is the first above the 1,650-ft. level work has been resumed in the face of the south drift from the east crosscut, and it has been extended 12 ft. in porphyry and quartz assaying $2 to $5 per ton; total length, 224 ft. On the sixteenth floor in the present south stoping region, in working south, we have extracted a small quantity of ore from narrow streaks which averaged $25.20 per ton, and have run from this point an east crosscut 15 ft. in quartz assaying $2 to $3 per ton. On the 1,750 level, from the sixth and seventh floors opened out through upraise No. 2, we have been extracting some ore from streaks 3 and 4 ft. wide, assaying $20 to $35 per ton. From the eleventh, twelfth and thirteenth floors we have worked north and south and have extracted, including 50 tons from the top openings of No. 2 upraise, 219 tons of ore, the average assay of which, per mine-car samples, was $39.45 per ton. The present workings on the 1,750 level are connected with the C and C shaft. We have reopened and repaired the northwest drift for a distance of 50 ft. beyond the point of interfection with the west crosscut, and will reopen it for 150 ft. more for the purpose of prospecting upward to open new ground on the east side of the ledge. The total extraction of ore was 221 tons, the average assay value of the car samples of which, taken on the surface, was $39.50 per ton, shipped to the Morgan mill 636 tons of ore, assaying, per railroad car sample, $41.32 per ton. The average assay value, per battery samples, of all ore worked at the mill during the week (640 tons) was $34.30 per ton. Bullion shipped to San Francisco office, assay value, $11,941.

Hale & Norcross.—The ore streak in the 975 level stopes looks the same at all points as when last reported and the streak of fair-grade ore in the winze below that level still holds good. We extracted from the several openings 35 carloads of ore, assaying per car sample $67.62 per ton.

Ophir, in the old Central tunnel region, a small quantity of ore assaying $20 per ton was saved from the northwest workings on the 250-ft. level. On the 1,000-ft. level of the Ophir shaft the joint work (Mexican and Ophir) of cutting out and timbering a station has been completed, and north and south drifts therefrom are to be started.

Potosi.—We continue to stope out from the 450 level, and extracted 204 tons of ore, which were sent to the Nevada mill. The average battery assay was $25.74 per ton. At the shaft on the croppings on the 30-ft. level, 60 ft. south, we have started a crosscut east, which is in 25 ft. The face is in quartz and clay.

NEW MEXICO.

Lincoln County.

(From an Occasional Correspondent.)

White Oaks District.—The prospects of railroad communication being established between El Paso, Tex., and White Oaks is making mining matters in this district look more promising than ever. All reports indicate renewed activity.

NEW YORK.

Clinton County.

Chateaugay Ore and Iron Company.—This company is making a number of improvements on its property. At Standish it is opening a new mine, and is building a Catalan forge of eight fires, which will be ready to start up in January. The iron ore deposit at this point is said to be 40 ft. thick. At Lyon Mountain about 200 tons of ore a day are now being taken out. The company is putting in here six magnetic separators, which will have a total daily capacity of 300 tons of concentrates carrying 66% iron. The output of the mines will be increased to about 500 tons daily as soon as the concentrating plant is ready.

NORTH CAROLINA.

Rockingham County.

Rockingham Mining Company.—This company is now working the vein of mica on its property near Price, and is said to have taken out some blocks of very good quality. It is also making arrangements to work the feldspar deposits on the property.

OHIO.

Columbus, Hocking Valley & Toledo Railroad Company.—At Albany, on November 26th, the New York Court of Appeals decided against Mr. James J. Belden, in his suit against Stevenson Burke and others, formerly officers of this company. The court reversed the judgment of the General Term, and affirmed that of Special Term with costs. The suit was brought by Mr. Belden, who owns 50 bonds of $1,000 each in the Columbus, Hocking Valley & Toledo Railway Company, to compel the defendent, Stevenson Burke, and certain others associated with him as officials of the railway company, to pay $8,000,000 and interest to the railway company for the benefit of the bondholders. Mr. Beldea bought his bonds on the Stock Exchange in 1883 at 79¾. Since then they have sold as high as 94. Their present price is about 89. The plaintiff claimed that under the terms of the mortgage securing the bonds it was the duty of the officers of the railroad company, of whom Burke was one, to apply the proceeds of the bonds, amounting to $8,000,000, to double tracking and equipping and otherwise improving the road. The bonds were used to purchase the stock of a coal company owning 10,000 acres of coal land in Ohio and adjacent to the railroad. The nominal value of the stock was only $1,500,000, but the profits from the coal lands have been over $400,000 a year, and more than enough to pay the entire interest on the $8,000,000 in bonds which were issued to purchase the stock of the coal company.

From the standpoint of the bondholders of the Hocking Valley Company this decision is of little moment, as it does not have any bearing whatever upon the more important suit pending in Ohio, in which the Central Trust Company, trustee of the bonds, is the complainant. The value of the bonds in question is not at all affected.

OREGON.

Baker County.

Oregon Gold Mining Company.—The property of this company was again sold on November 19th, according to the decree of court, which did not confirm the first sale of several months ago. The property was knocked down to a syndicate headed by John Doerhoefer, which had purchased it at the first sale. The same price as before, about $9,000, was brought.

Union County.

Cornucopia District.—At the Union-Companion mines in Cornucopia a tramway is now being constructed, and pipes laid to utilize the water power of Pine Creek, and will give all the electrical power necessary for mill purposes. The mines have been under extensive development for many months past, and there is enough ore in sight to keep the mill running for some time. About 50 or 60 men will be employed when the mill starts work.

PENNSYLVANIA.

Anthracite Coal.

The coal strippings of A. S. Van Wickle, at Coleraine, shut down on November 23d, and will remain idle until April 1. By this move 300 men employed about the strippings and derricks have been thrown out of work.

Delaware & Hudson Canal Company.—This company's coal transfer pockets at Carbondale were destroyed by fire on November 24th. The structure was 509 ft. long. Considerable coal and 75 cars were also consumed. About 120 men are thrown out of work. The loss is estimated at $45,000. The origin of the fire is not known.

The Lehigh & Wilkes-Barre Coal Company, according to the Hazelton "Standard," is sinking a slope on the Lykens Valley vein, which was discovered at No. 8 Honey Brook a short time ago. Last week the coal was reached in the new slope, and it will now be but a matter of a few weeks until it has reached the depth desired. In all there have been 3 veins cut in that territory during the past few weeks by the drillers. One was 13 ft. thick, on

which the new slope is being driven. Another was 9 ft. and the third 4 ft. thick. After the Lykens Valley is thoroughly opened up attention will be given the other two veins.

Blair County.

Tussey Mountain Mining and Smelting Company.—This company has been for some time at work on a property near Henrietta, where it is claimed that gold and silver ore exists. The company has now begun to take out ore, and will soon begin to make a test.

Lancaster County.

Some development work is in progress on the farm of V. K. Alexander, near White Rock, where asbestos has been discovered.

Oil.

A press despatch from Pittsburg says that for about $2,500,000 the National Transit (Standard Oil) Company has bought the independent W. L. Mellon Pipe Line, of Pittsburg, to take possession on December 1st. The line embraces 325 miles of pipe, extending through Allegheny and Washington counties and in the Sisterville field and 100 miles of main line from Sisterville to Pittsburg, and 1,000,000 barrels of tankage. The deal will include the Bear Creek Refinery at Coleman Station, on the Allegheny Valley Railroad, and one at the terminus of the trunk line at Marcus Hook, Delaware County; also a controlling interest in the Crescent Pipe Line, extending from Pittsburg to the seaboard.

SOUTH CAROLINA.

Shipments of crude rock for the month of October are reported at 16,100 tons.

Ashley Phosphate Company.—This company at Charleston recently made an assignment, Mr. W. B. Frost being appointed assignee. The amount of the company's obligations is not stated. It has been in operation for a number of years.

SOUTH DAKOTA.

Lawrence County.

Homestake Mining Company.—The tunnel now being driven by this company on its claim, known as the Whale lode, is now under cover about 200 ft. The object of the tunnel is to intersect the high grade silicious ore shoot which has yielded such rich returns to the owners of the Golden Crown lode, adjoining. The discovery on the latter was made close to the sideline between it and the Whale. The tunnel of the latter was located from underground workings in the Golden Crown.

Sula.—Mr. J. J. Schlawig, owner of this mine, at Lead, reports that he has recently opened up a vein of free milling ore at a depth of 125 ft. from the surface. The new work consists of a 35-ft. open cut, continued as a tunnel for 50 ft. About 10 ft. of the latter is in promising ore. Drifts will now be run in either direction from the tunnel to prove the extent of the vein. Near the surface, on this property, a large body of silicious ore has been developed, carrying from $10 to $50 in gold per ton, says the Deadwood "Times." The average value, however, is not sufficient to pay present treatment charges and cost of mining.

(From Our Special Correspondent.)

The deal for the Golden Reward properties and mill, which has been under way for some time, is understood, is practically closed, and the New York purchasers are expected here daily to complete the transaction.

A bond has been given on the claims of the Plutus Mining Company, in Nevada Gulch; the Bottleson Company, in Fantail, and two other adjacent claims, for which the consideration is supposed to be about $200,000.

Offers for other properties in the immediate neighborhood have been made, presumably for outside independent parties, and there is much excitement in mining circles in consequence.

The bond on the Gunnison and adjoining claims, to Boston parties, expires shortly, with every prospect of their being taken up, in which case, the chlorination plant at Rapid City will be utilized for the treatment of their ores.

The Kildonan Mill, at Pluma, is now in successful operation and treating the ores of the Welcome and Mark Twain Mining Companies.

The ore receipts in Deadwood, for the past week, from the mines at Bald Mountain, have averaged 250 tons, which would have been largely exceeded, but for the inability of the present mills to treat the ore. This lack of capacity is retarding development, and the need of more mills is every day more apparent.

It is reported that the mill at Spearfish, which is partly completed, will soon be started up, and with its 100-ton daily capacity, help to partly solve this question. Several good strikes have been made during the past week, in the Squaw Creek region, which if verified, will increase the area of mineral ground largely, and it is with this in view, that the Spearfish plant will be completed. There is much development work going on in and through the Southern Hills, all tending to improve the general situation of the country, and of which little is known outside of the owners of the property. Much ore is being shipped out of the country, to Omaha and Kansas City, and that the shipments continue, proves that the ore must be of a high grade, to warrant the expenses attendant thereon.

TENNESSEE.

The "American Fertilizer" reports shipments of phosphate from the Tennessee district in October at 4,250 tons. The production for the month was 5,800 tons, and stocks on November 1st are estimated at 4,300 tons.

Hickman County.

Duck River Phosphate Company.—This company is putting in a compressed air mining plant at its works, and will use 10 Rand drills in mining.

Hickman Phosphate Company.—This company was recently organized and is opening up some property on the Bates Place, near Sunrise, and adjoining the Persimmon branch of Swan Creek.

Southern Phosphate Company.—This company, says the "American Fertilizer," has recently opened a fine piece of property on the Peery tract. It has been stripped for a distance of nearly 1,000 ft. on the face of a very low bluff, the vein varying in thickness from 18 to 33 in.

Swan Creek Phosphate Company.—This company has lately bought the Hutchinson tract, which is said to contain a large body of high grade phosphate rock. It is on Swan Creek, about a mile from the company's McCaleb mine. The company has recently built a tramway about four miles long to transport the rock.

Tennessee Phosphate Company.—This company recently made an assignment, and Mr. A. N. Akin, of Columbia, Tenn., was appointed receiver. The liabilities are $43,000 and the assets are sufficient to cover all the debts if properly managed, it is stated. The mines are shut down for the present, but it is said that negotiations are in progress for the organization of the company.

UTAH.

Beaver County.

Rob Roy.—At this mine, in Newton district, a strike of high-grade quartz was made recently in the crosscut on the 100-ft. level. The body is 18 ft. thick where it was first crosscut, is of a fine, white quartz with oxidized iron, and runs well in gold, says the Salt Lake "Tribune." During this winter 10 men will be kept at work drifting with the course of the vein and occasionally crosscutting. The property now has an old style 10-stamp mill, which will be replaced with a modern mill, should the developments this winter warrant it.

Morgan County.

Norway Iron Mining and Manufacturing Company.—The annual meeting of this company was held in Salt Lake City on November 16th. Some 70,000 shares were represented and the following were elected directors: John T. Lynch, C. J. Gustaveson, B. A. M. Froiseth, J. A. Froiseth and Joseph M. Froiseth. At a meeting of the directors held on November 28th for the election of officers, John T. Lynch was chosen president, C. J. Gustaveson vice-president and B. A. M. Froiseth secretary and treasurer. The company owns iron mines in Morgan County, which are well developed, and are said to show large bodies of iron ore. Work is to be resumed at once upon the property.

Salt Lake County.

Yosemite No. 1.—In this mine at Bingham, in what is known as the west tunnel, which was run from the surface and is in over 1,200 ft. three distinct ore chutes have been opened up and are all now being worked successfully by leasers. The 800-ft. level is now in toward the west a little over 100 ft., and it is expected that at a distance of 200 ft. from the incline the first pipe of ore in the west tunnel will be tapped.

Summit County.

Anchor Mining Company.—This company held its annual stockholders' meeting in Park City on November 20th. There were represented by the stockholders present 102,967 shares. General Manager David Keith submitted his annual report, which is for the present withheld from publication. The following were elected directors for the ensuing year: Francis Smith, of Muskegon, Mich.; Edwin F. Holmes, of Oseota, Mich.; J. M. Adams, of Cleveland, O.; S. C. Tewksbury, of Detroit, Mich.; Harry E. Myers, of New York City; F. A. Nims, of Muskegon, Mich.; David Keith, of Park City; D. C. McLaughlin, of Park City, and R. Mackintosh, of Salt Lake City.

Tooele County.

Daisy.—Messrs. Hamm and Holmes, of Salt Lake City, with New York capital, have secured a bond and lease to run one year on the Daisy group of four claims owned by E. B. Shoebridge, and lying to the north and west of the Eagle. The consideration is $16,000. A large force of men will be put to work on the property.

Grey Bull.—J. W. Hamm has sold this group of 6 claims in the Camp Floyd district to G. S. Holmes, of Salt Lake City, and Cornelius Valentine of New York, for a consideration of $40,000, of which 10% was paid down, says the Salt Lake "Tribune." The group adjoins the Golden Gate on the east and the Jones Bonanza on the north, and now has nearly 300 ft. of tunnel work done.

Mercur Gold Mining & Milling Company.—The following letter is being sent out to the stockholders by Secretary E. H. Airis: The management and the heaviest holders of this company have given an option on 175,000 shares or more, to J. R. De Lamar, until January 6th, 1896, at the rate of $7.50 per share. All stockholders who desire to take advantage of this deal will be given an opportunity to do so. So if you want to sell with the rest of us, at that price, please bring in your stock, indorsed, and we will give you a receipt for it. We will then hold the stock in trust, subject to the conditions of the option, to be applied on the sale in the event of its consummation. Otherwise the stock to be returned.

WASHINGTON.

Stevens County.

Chloride Hill.—The owners of Chloride Hill and Rattler mining properties, incorporated last week with 384,000 shares, of a par value of $1 per share. The members forming the corporation are Messrs. C. G. Snyder, H. H. McMillan, A. W. Turner, J. P. Turney and Mrs. Lilly Richards. The Chloride and Rattler mining claims are about three miles from Fruitland, and in addition to these properties the company owns two claims adjoining the Cleveland.

WEST VIRGINIA.

Doddridge County.

In the Big Flint district two wells, one of 250 barrels and one of 150 barrels a day, have been completed, and much attention is being drawn to the district.

Wetzel County.

South Penn Oil Company.—This company's new well on Buck Run is attracting much attention. It is spouting at the rate of 500 barrels a day.

FOREIGN MINING NEWS.

SOUTH AFRICA.

Transvaal.

The detailed table of production issued by the Witwatersrand Chamber of Mines shows that for the month of September the output of gold was as follows: From mill work, 131,518 oz.; concentrates, 8,794 oz.; tailings, 53,212 oz.; other sources, 1,241 oz.; total, 194,765 oz., valued at $3,228,403 or $16.58 per ounce, showing the gold to have been on an average of about 800 fine, and the production reported to have been equivalent to 155,812 fine ounces. During the month there were 2,580 stamps at work in the district, and the ore worked through the mill was 296,365 tons. The average yield per ton from mill worked, based on the tonnage stated above, was 0·44 oz., and from tailings worked by the cyanide process it was 0·23 oz., making a total of 0·67 oz. per ton worked. The largest yield reported for the month was by the Robinson Company, 15,077 oz. The Crown Reef reports 11,385 oz.; the Langlaate estate, 11,081 oz. and the New Primrose 11,018 oz.

The total output of the Witwatersrand mining district for the month of October, as reported by telegraph, was 192,652 oz. gold. This is 2,112 oz. less than the September production, and 10,921 oz. below the maximum, which was reached in August. The production, in fact, is the lowest which has been recorded in any month since April last. It is, however, 19,274 oz. greater than that of October, 1894. For the 10 months ending October 31st the production amounted to 1,903,989 oz., which compares with 1,666,251 oz. in the corresponding period of 1894; 1,193,478 oz. in 1893; 986,424 oz. in 1892, and 575,532 oz. in 1891.

African Gold Recovery Company.—This company announces that 54,500 oz. of gold have been recovered at the Rand, and 7,000 oz. in other districts of the Transvaal; total 61,500 oz. during October, by means of the cyanide process. The September total was 64,000 oz.

LATE NEWS.

Mr. Paul Morton, now vice-president of the Colorado Fuel & Iron Company, has been elected third vice president of the reorganized Atchison, Topeka & Santa Fe Railroad Company.

General Thomas Jordan, who has been widely known to mining men as the Editor of the late "Financial and Mining Record" of New York, died at his home in this city November 27th, at the age of 76 years. General Jordan, a Virginian by birth, studied at West Point, and entered the United States Army, from which he resigned in 1861 and entered the Confederate Service. In 1869 he became the Commander of the Cuban Revolutionists.

After his return to this country General Jordan entered journalism, and in 1876 took editorial charge of the "Financial and Mining Record," which was published and owned by A. R. Chisolm, a stockbroker of this city, and continued to edit it until it was discontinued in 1892. This paper was, under General Jordan's editorial administration, the unwavering advocate of free silver coinage, to which he absolutely devoted himself, and on which subject he wrote with great ability.

Shipments of iron ore have ceased from the Minnesota ranges, and the docks are bare. While it is not yet possible to give the exact figures for the three roads and all the mines, it is probable that the total will not far exceed or fall off from 4,100,000 tons. Of this the Vermilion range has mined 1,072,632, and the Mesabi the remainder. The Duluth & Iron Range road has handled 2,130,635 tons; the Duluth, Mesabi & Northern about 1,750,000 tons, and the Duluth & Winnipeg some 200,000. The Chandler mine has led with a total of 600,990 tons, the Oliver has come next with about 505,000, the Minnesota mines at Soudan follow with 431,589, and the Auburn, Canton Mountain Iron, Franklin group, Adams and Mahoning follow, all with more

than 200,000 tons, with from 375,000 to 200,000 tons. Of the Minnesota Iron Company's mines the Auburn mined 374,208, the Canton 359,029, the Fayal 136,601 and the Norman 93,391. During last week 20,000 tons were shipped from Two Harbors, and but very little from Duluth and some little ore is frozen in the dock pockets at both places.

Missouri Lead Market.

(From Our Special Correspondent.)

For the week ending November 26th there was a still further decline in the Joplin ore market. Some operators refused to sell at the prices offered, while some lots were not bid on by the buyers. This, with the bad weather the last days of the week, materially cut down the output, which is as follows: Joplin, zinc, 781,410 lbs.; lead, 239,000 lbs.; value, $13,217. Webb City, zinc, 651,540 lbs.; lead, 24,690 lbs.; value, $7,580. Carterville, zinc, 1,203,660 lbs.; lead, 247,790 lbs.; value, $18,549. Alba, zinc, 126,000 lbs.; value, $1,449. Stotts City, zinc, 168,000 lbs.; value, $2,016. Aurora, zinc, 450,000 lbs.; lead, 43,900 lbs.; value, $4,856. Springfield, zinc, 50,600 lbs.; value, $615. Newton County, zinc, 71,890 lbs.; lead, 51,300 lbs.; value, $1,525. Galena, Kas., zinc, 1,640,000 lbs.; lead, 400,000 lbs.; value, $24,021. Total output for the district: Zinc, 5,241,500 lbs.; lead, 997,680 lbs.; value, $75,828.

El Paso County, Colo.—Cripple Creek District.

(From Our Special Correspondent.)

Rebecca Gold Mining Company.—The C. O. D., owned by this French Company, encountered an entirely new ore shoot at the fifth level, 75 ft. south of the old shoot from which nearly $200,000 have been taken. The new ore shoot is certainly one of the richest that has been found in the camp. Not a few specimens have been telluride and fluoride, the telluride preponderating. This new shoot has greatly enhanced.

Moose.—This property on Raven Hill has at the fifth level, the best showing of any mine in the camp. During the past two weeks all the assays on the vein from 3 to 4 ft. wide yield from 50 to 100 oz. gold, and from 75 to 130 oz. silver. The south shaft 500 ft. south of the working shaft is about to make its initial shipment of high grade ore, proving that this ore shoot is over 500 ft. long. There are 70 men employed.

Work Mining & Milling Company.—The Morning Glory, owned by this company, and situated in the town of Anaconda, has a large body of ore exposed. One half of a 13 months' lease recently changed hands for $5,000. The purchaser estimates the ore blocked out at $300,000.

COAL TRADE REVIEW.

NEW YORK, Friday Evening, Nov. 29.

PRODUCTION OF BITUMINOUS COAL, in tons of 2,240 lbs., for week ending Nov. 23d, and year from January 1st:

Shipped East and North:	1895. Week.	1895. Year.	1894. Year.
Allegheny, Pa.	42,875	3,017,265	1,107,206
Barclay, Pa.	$.....	$.....	$.....
Beech Creek, Pa.	65,075	2,137,150	2,043,167
Broad Top, Pa.	$.....	$.....	331,383
Clearfield, Pa.	88,275	5,259,817	2,397,006
Cumberland, Md.	$.....	$.....	2,612,792
Kanawha, W. Va.	†91,800	3,082,015	2,395,905
Phila. & Erie	675	52,585	67,957
Pocahontas Flat.	$.....	$.....	3,096,220
Total.	288,700	13,548,832	14,041,636

† Week ending Nov. 21st. $ Returns not received.

Shipped West:	1895. Week.	1895. Year.	1894 Year.
Monongahela, Pa.	23,425	789,161	602,516
Pittsburg, Pa.	34,400	1,696,301	1,314,875
Westmoreland, Pa.	41,975	1,758,599	1,457,666
Total.	99,800	4,244,061	3,375,057
Grand total.	388,500	17,792,893	17,416,693

Production of coke on line of Pennsylvania Railroad for the week ending Nov. 23d, 1895, and year from January 1st, in tons of 2,000 lbs.: Week, 136,492 tons; year, 5,279,352; to corresponding date in 1894, 3,140,060 tons.

Anthracite.

There has been no new development in the anthracite market since our last report. It continues very quiet.

This being the last week of lake navigation, attention must be directed from now on to the tidewater market. Buyers are showing little inclination to increase their stocks just now. The weather has been against much coal consumption and in the absence of a good demand prices are weaker. What few sales have been made are really no criterion of what prices a buyer could get if he brought in a good order.

F. o. b. quotations are as follows: Stove, $3.75@$3.85; egg and chestnut, $3.40@$3.50; broken, $3.10@$3.15. There have been reports of still lower figures and statements that some companies are yet asking the "circular," which is about 15c. higher. But the prices we quote are a fair average.

It is recognized that the market from now on will be altogether a "weather market"—precisely the worst kind when the various interests are working without an understanding. We do not hear that any of the companies has begun to restrict and if the trade is to be governed by ordinary conditions of demand and supply, it will not be long before there will be an over-supply. Officials of many of the companies have claimed that they would "restrict" at the proper time; but the proper time has arrived and the curtailment has not.

If, as now seems probable, the companies will begin to accumulate coal, they will find that no "cold snap," which we are likely to have will be of sufficient severity or duration to decrease stocks to the point where high prices may be readily asked and obtained. This is the entire story in a nutshell and it is the reason why prices are beginning to waver. Buyers are waiting for sellers to reduce their figures.

NOTES OF THE WEEK.

The statement of the Philadelphia & Reading Railroad Company for October, 1895, shows gross receipts of $2,274,260, and expenses of $1,060,776, leaving the profit in operating $1,213,483. Net receipts from other sources of $28,172 bring the profit for the month up to $1,241,556. From this is deducted total charges of $863,505, leaving a surplus for the month of $378,150. For the corresponding month of 1894 the surplus was $100,234.13. The deficit for the fiscal year to November 1st is $201,061. For the corresponding period of 1894 the deficit was $1,347,543.

The statement of the Philadelphia & Reading Coal and Iron Company for October, 1895, shows gross receipts of $3,350,686. The operating expenses were $3,251,095; $53,972 were spent for colliery improvements and $5,096 for permanent improvements. The gross expenses for the month were, therefore, $3,310 165, which, deducted from the receipts, leaves a profit from mining of $40,521. From this is deducted $95,000, one-twelfth of the current year's fixed charges, which leaves a deficit for the month of $54,478. For the same month of 1894 the deficit was $99,061. The deficit for the fical year to November 1st is $1,753,942. For the corresponding period of 1894 the deficit was $1,183,452. Appended to the report is the following note: The gross receipts and the net receipts of the Reading Railroad Company for October, 1895, were larger than for any previous month in its history. The combined movement of anthracite and bituminous coal was also greater than ever before, being 1,536,722 tons. The combined profit of the operations of the two companies for 11 months was $4,274 less than for the same period of last year, and the deficit in earning all fixed charges of the two companies was $575,991 less than last year; the gain in this item being largely due to smaller payments for improvements and equipments and to diminished interest charges.

Bituminous.

The soft coal trade is dull and all producers report a shortage of orders. Tonnages have been reduced considerably but this is not altogether an unmixed evil, as operators will now be able to make necessary repairs and improvements at the mines which they could not do before owing to the rush of the past month or two.

Consumers are buying a little, but as their season contracts have all been filled they are generally purchasing from other sources, either through motives of economy or as an experiment with other grades of coal than their usual supply.

There is a fair transient trade doing. The all-rail business continues good and shows the same increase in shipments that we reported last week. The Sound ports are still the heaviest takers of coal, proportionately. Prices are nominally unchanged. We quote f. o. b., at the various ports, as follows: Norfolk and Newport News, $1.90@$2.15; Baltimore, $2@$2.20; Philadelphia, $1.75@$2.20; New York harbor shipping ports, $2.20@$2.65; alongside New York harbor, $2.40@$2.75; alongside Boston, $2.75@$3.

Transportation is excellent. The car supply is not good on some of the roads, but as the demand for cars is not heavy no inconvenience is experienced. There is considerable coal banked at the shipping ports and those shippers who do not load promptly on vessels are restricted in the supply of cars more than the others.

Vessels remain scarce, especially those of light draught. We quote ocean freight rates as follows from Philadelphia: To Boston, Salem and Portland, 90c.; Sound ports, 70c.; Wareham, $1; Newburyport, $1; Portsmouth, 95c.; Lynn, $1.10; Bath, $1; Gardiner and Bangor, $1.30. From Baltimore, Norfolk, and Newport News rates are from 5 to 10c. higher.

Chicago. Nov. 27.

(From Our Special Correspondent.)

Anthracite Coal.—Sales in Chicago have been fairly good during the past week. A severe snow storm has hindered deliveries greatly and the stock of hard coal on hand is even more limited than last week. The weather conditions have caused a greatly increased retail trade and the demand exceeds the capacity in a good many cases. Lake navigation closed this week and hereafter dealers will have to look for their supplies by rail. There is considerable hard coal on the way here by rail already, but if the present weather continues Chicago may experience a hard coal famine. Prices, as may be expected, are being held at circular rates.

Bituminous Coal.—An increase in the demand has resulted from the cold weather, and it has created at the same time a deficiency in the supplies of a good many dealers.

Buffalo. Nov. 27.

(From Our Special Correspondent.)

The weather for three days past was very tempestuous, heavy rain Monday, culminating yesterday with quite a cyclone and wind howling from 50 to 68 miles per hour. To-day a sharp frost with threatening snow.

Trade in anthracite coal is good. Bituminous is in fair demand. Prices of hard and soft coal are unchanged.

Lake freights are not quite so active, partly in consequence of the storm hindering shipments and navigation.

Ice has formed in Lake Superior ports, and in St. Mary River, but is not strong enough yet to prevent the passage of vessels. Indications point to the near close of navigation and many craft have already laid up for the winter.

The movement of coal westward by Lake from Buffalo from November 17th to 23d aggregated 115,850 net tons distributed as follows: 67,000 tons to Chicago, 17,300 tons to Milwaukee, 10,250 tons to Toledo, 10,500 tons to Superior, 7,800 tons to Duluth, 500 tons to Marine City, 500 tons to Bay City, 600 tons to East Saginaw and 1,400 tons to Gladstone. The rates of freight were 90c. to Chicago, 85c. to Milwaukee, 60c. to Saginaw, 50c. to Port Huron and Toledo, 40c. to Marine City, 50c. to Bay City and 30c. to Duluth, Superior, Gladstone and Ashland. Closing firm with good demand for vessels considering the near close of navigation.

Fifty cents per net ton is being paid for freight on coal from Cleveland to Lake Superior ports.

It is reported that a contract has been made for the equipment of the Erie Canal with electrical propulsion. The Erie Canal Traction Co. has entered into an agreement with the Erie Construction Co. to provide a system for canal boat propulsion between Buffalo and the Hudson River at West Troy and Albany at a cost of $2,250,000, and that work will proceed as the work upon the canal enlargement and improvement progresses.

Pittsburg. Nov. 28.

(From Our Special Correspondent.)

Coal.—The prospect at this time is favorable for a good run of coal, the first since the beginning of April. There are 28 towboats with teams hitched up. Some have taken their departure, others will wait for more water, as the present water is hardly sufficient for safe runs; the boats departing will have barges. Those having coal boats will not venture out until we have more water. The scene along the wharf was a lively one; at this time it is impossible to form any idea of the amount that will go forward; even if all the boats were to depart they would not be able to take half the amount loaded and waiting shipment. Cincinnati's coal supply is said to be exhausted.

A telegram from Charleston, W. Va., says that there are 7,375,000 bushels of coal loaded in the Kanawha river to go out at the first water; the long continued low water has been very severe on the coal operators and miners on the Kanawha valley, some of the river mines have been idle for three months. It is now about six months since there has been a good run of coal. We are in hopes that there will be plenty of water all winter.

As near as can be ascertained about 5,000,000 bushels of coal left for the lower ports. As usual, on account of the scarcity of water and the anxiety to get out first there were a number of accidents, but nothing very serious.

Connellsville Coke.—The trade shows no signs of weakening. Last week the output took another spurt upward, despite the effort to keep production down, and rose higher than any week's output has yet reached. Cars were more plentiful and helped business, hence the shipments exceeded 10,200 cars, beating all previous records of any single week. The car supply is improving and an unusually large shipment was the result; the demand for coke is phenomenal, and all calculations have gone astray. The business is large, and with the unusually prosperous condition of the country there is no telling where the business will go to. There is but one guess for the future, and that is that 1896 will be a big year for the coke business and a record breaker.

The summary of the region was 16,118 ovens in blast, with 1,829 idle; the changes for the week show an increase of 83 ovens. The production for the week in tons amounted to 154,320 tons. The H. C. Frick Company made five days on all its plants in operation; the McClure Coke Company made the usual six days; the Rainey plant made six days at Fort Hill, Grace, Paul, Mt. Braddock and Elm Grove, and five days at Rainey. The Independent plants all made six days. The week's shipments reached 10,241 cars, as follows: To Pittsburg, 2,561 cars; East and way points, 2,078; to points west of Pittsburg, 5,602 cars. Prices unchanged.

A committee representing the pick mine operators, the machine mine operators, pick miners and machine miners, two from each, selected at the October conference of the miners and operators, met to revise the scale and to make recommendations to the conference meeting next week. No machine mining rate has been adoped by the operators, the price having been figured down from the regular pick working rate. Despite the fact each operator has been making his own rate, it was figured out that they only varied three-fourths of a cent in the narrow-work scale. Machine men were paid 8c. and 11c. a ton for cutting rooms and 2·1c., 2·3c. and 2·7c. extra for driving entries. It was decided to recommend a 3c. rate for this class of work, which will be an increase in all the mines. The loader has been receiving one-half the rate paid pick miners except in room turning, where the cutter has been getting 2·85c. extra per room, and the car loader has been getting nothing. The committee decided to

equalize this by having the sum divided between cutter and loader. Two machines are in use in the mines, the Jeffreys and the Harrison. The cutter on the Jeffrey machine has been getting 8c. a ton, while the Harrison men get 11c. a ton. The committee collected considerable data, which will be placed before the joint conference next week.

IRON MARKET REVIEW.

NEW YORK, Friday Evening, Nov. 29, 1895.

Pig Iron Production and Furnaces in Blast.

Fuel used.	Week ending Nov. 30, 1894.		Week ending Nov. 29, 1895.		From Jan. '94.	From Jan., '95
	F'ces.	Tons.	F'ces.	Tons.	Tons.	Tons.
Anthracite.	37	18,990	58	36,350	785,904	1,127,418
Coke...	126	141,402	156	180,160	4,684,917	7,161,334
Charcoal...	23	4,746	24	5,090	199,714	202,995
Totals....	186	165,138	238	221 600	5,670,535	8,491,747

The market still continues to a large extent a waiting o e, and the uncertainty as to next year's contracts has not been terminated. There has been no material change in the situation, which still appears, on the whole, in favor of the producers of raw iron and steel. The steady demand for finished products shows no sign of material diminution, and stocks of raw materials are diminishing. The very large pig iron production does not seem at all to have outstepped the market, and we hear of very few instances of pressure to sell. Here and there a furnace not over-supplied with working capital may have shaded prices, but there has been no such general cutting as some of the so-called "organs" of the trade would have us believe. Now that the speculative rise has been pretty well shaken out, there seems to be little probability of a much lower range of prices. The demand for construction material is very large, and there is another element coming in to support the market.

It begins to be certain that the railroad demand will be of considerable importance during the first half of the coming year. Already we hear of many large orders for freight cars; the car shops are all full of work for several months ahead and will need in the aggregate a large quantity of iron to fill their contracts. Orders for rails are slower in coming; the need of renewals in this direction is not so pressing as the demand for cars, and on most roads can be better postponed. The rail contracts will come later. There are three or four large companies which are now in process of reorganization whose roads have been neglected for several years, and which will be heavy customers for rails as soon as their financial arrangements are completed. There can be no doubt that the railroads will be good customers in 1896, and their requisitions will aid materially in sustaining the market for steel outside of rails, which are held far above fair price by the rail combination.

The exports of iron and steel continue to increase and the total for the present year will compare favorably with any of its predecessors. A considerable part of this increase is in finished and manufactured form, such as machinery and agricultural implements.

Arrivals of foreign iron ores for the Eastern furnaces continue large. This ore comes to Baltimore and Philadelphia chiefly. We note again the arrival of cargoes of ore from Algeria, as well as from Spain and Cuba.

NOTES OF THE WEEK.

At the meeting of the National Hardware Association in Pittsburg last week the following officers were chosen: President, W. W. Supplee, Philadelphia; first vice-president, H.H. Bishop, Cleveland; second vice-president, John Alling, Chicago; executive committee, S. A. Bigelow, Boston; P. F. Strong, St Paul; Brace Hayden, San Francisco; Theodore Buhl, Detroit; F. B. Eahelman, New Orleans and C. W. Tillinghast, Troy. N. Y. Philadelphia was selected as the place for the next meeting of the association.

In a letter to the State Department just made public Acting Secretary of the Treasury Hamlin says: I have the honor to acknowledge the receipt of your letter inclosing a copy of a dispatch from the United States Consul at Santiago de Cuba, in which he inquires whether manganese ore containing from 48 to 51% of manganese and from 1 to 2% of iron will be entitled to free entry under the provision in paragraph 546, act of August 28th, 1894, for manganese, oxide and ore of. In reply I have the honor to inform you that the department's decision, cited by the consul, which held that manganese ore must contain 50% or over of manganese, and not over 10% of iron, has been modified so that manganese ore containing from 40 to 44% of manganese and less than 3% of iron is held to be exempt from duty as manganese ore. Under this decision the ore described by the consul is exempt from duty.

New York. Nov. 29.

A week with a holiday in the middle of it is almost always a dull week, and the present has been no exception to the general rule. But little is to be reported in the way of new business, and most dealers have confined themselves to their necessary routine work. There is no sign, however, of any falling off in the general activity, or of any material reduction in the aggregate volume of the small transactions which make up the greater part of the local market.

Just at present there is more activity in shipping and in selling, and there is quite a pressure to hurry forward deliveries to Hudson River and New England points before navigation is closed for the season. The indications are that the river will be open to an unusually late date; but this is uncertain, and people like to be on the safe side.

The contest between the two leading street railroad companies in the city is going to result in the building of new lines and the reconstruction of old ones to an extent which will call for a large quantity of material next season, and the question as to how much of the work will go to local concerns is interesting many.

The strike in the structural iron trade continues, and the attempt of the Cornells and some other concerns to start up with non-union labor has been thus far a failure. The result of the contest is still uncertain. The strike has not seemed to us to be either a necessary or a well-handled one, and its occurrence at this time is to be regretted. One very probable result will be the sending of an increased amount of local work to mills and foundries out of town, and this will react unfavorably upon the city workmen.

Pig Iron.—Plenty of small orders continue to come in, and sellers do not show any special anxiety yet as to the larger ones. Prices are well maintained. The drop in the Pittsburg market was chiefly in Bessemer pig, an iron which is not dealt in on this market. For foundry irons there is no material change, and some kinds do not seem to be in over-abundant supply.

We quote, for Northern brands, No. 1 $13.75@$14 25; No. 2, $12.75@$13.25; gray forge, $12.50@$13. Southern iron, No. 1 foundry, $13.75@$14; No. 2 foundry, $13 25@$13.75; No. 1 soft, $13.75@$14; No. 2 soft $13.25@$13.75; forge, $12.50@$13. All prices are for tidewater delivery.

Cast Iron Pipe.—No business is reported, and none is expected for the present.

Steel Billets.—The market is a little more active, but with no change in prices, and we continue to quote billets $21.50@$22 at tidewater. Rods are $30.50@$31 at tidewater.

Spiegeleisen and Ferro-Manganese.—Business continues light. We quote $25.50@$26 for spiegeleisen, and $52@$52.50 for ferro-manganese, both without change.

Merchant Iron and Steel.—Sales of small lots continue steadily, and no material change in prices is to be noted. We quote: Bessemer machinery, 1·50@1·65c.; open-hearth, 1·60@1·75c.; soft steel bars, 1·40@1·45c.; steel hoops, 1·60@1·75c.; steel axles, 1·60@1 80c.; links and pins, 1·70@1·80c.; tire steel, 1·85@1·90c.; spring steel, 2·10@2·25c. Bars are 1·35@1·45c. for common and 1·50@1·65c. for refined.

Structural Iron and Steel.—The strike in the building trade has delayed business somewhat, and less has been done than for some time past. The new bids for the appraisers' stores are called for, notice being given that the Supervising Architect for the Treasury Department will receive proposals until December 21st for furnishing all the labor and materials required for the steel and iron work of the United States Treasury warehouse in this city. There will be required in all about 11,600,000 lbs. of steel and iron work to be used on the fourth, fifth, sixth, seventh, eighth, ninth and tenth floors; also the roof and steel columns above third floor and various other iron work. For new orders prices are perhaps a shade lower, and we quote for angles, 1·65@1·75c.; channels, 1·75@1·85c.; tees, 1·80@1·95c.; beams up to 15-in., 1·75@1·85c. for large orders, and 2@2 10c. for smaller lots.

Plates.—Most pressing orders are filled and there is a tendency to concede a little to good buyers, so that prices can be given a little lower. For steel plates we quote: Tank, 1·70@1·80c.; boiler shell, 1.90@2·05c.; flange, 2·10@2·25c.; firebox, 2·50@2·75c. Universal mill plates are 1·75@1·85c.

Steel Rails and Rail Fastenings.—Standard sections are quoted without change, $28 per ton at mill, and $28.75 at tidewater. For street rails there continues to be plenty of inquiry. Rail fastenings continue in good demand. We quote for fish and angle-plates, 1·45@1·50c.; spikes, 1·80@1·85c.; bolts, square nuts, 2·10@2·25c.; bolts, hexagon nuts, 2·20@2·35c.

Scrap Iron.—Foundry scrap continues in demand, and we quote $10.50@$12, according to quality and size of lots offered.

Buffalo, N. Y. Nov. 27.

(Special Report of Rogers, Brown & Co.)

The pig iron market continues quiet, but with rather more interest manifested in the subject of contracts for next year's delivery. Very little business of this nature has been consummated, and meanwhile furnaces are straining all their facilities to keep up deliveries on orders taken during the past two or three months. A shortage in the car supply is being severely felt in certain sections and not in others, but sufficient to cause inconvenience to many melters of iron in this territory. Prices remain stationary at about the schedule quoted below, which is on the cash basis, f. o. b. cars, Buffalo: No. 1 Foundry Strong Coke Iron, Lake Superior ore, $15.25@$15.75; No. 2 Foundry Strong Coke Iron, Lake Superior ore, $14.75@$15.25; Ohio Strong Softener No. 1, $16.25@$16.75; Ohio Strong Softener No. 2, $15.25@$15.75; Jackson County Silvery No. 1, $16.25@$17; Southern Soft No. 1, $15.15@$15.65; Southern Soft No. 2, $14.65@$15.05; Hanging Rock Charcoal, $18.50; Lake Superior Charcoal, $16.75.

Chicago. Nov. 27.

(From Our Special Correspondent.)

There is no change in the condition of the iron and steel market of Chicago, the week just passed having, if anything, been a trifle more unsatisfactory than its predecessor. Consumers continue to hold off thinking that prices will come their way before long, and dealers are sticking close to prevailing prices, with but small ideas of very soon making any reduction.

Pig Iron.—Sales of pig iron have been limited wholly to carload lots to 100 tons. Consumers are following the plan of buying just for immediate wants and it is not probable than any extensive buying will begin until after the first of the year. Prices, consumers think; are entirely too high, but as many of the furnaces both North and South are well filled on old orders, prices will remain high for some time to come. Quotations are unchanged as follows: Lake Superior charcoal, $16; Lake Superior coke, No. 1, $15@$15.50 No. 2, $14.50@$15; No. 3, $14@$14.50; local Scotch No. 1, $15; No. 2, $14.50; No. 3, $14; Jackson County silveries, $15.50@$16; Southern coke, foundry, No. 1, $14.25; No. 2, $14; No. 3, $13.75; Southern soft, No. 1, $14.25; No. 2, $14; Southern car-wheel iron, $17.50; Southern silveries No. 1, $15.25; No. 2, $15; Tennessee charcoal No. 1, $13@$13.50; Bessemer, $18. Ohio strong softeners, $15@$15.50.

Structural Material.—But a small business has been transacted in structural material. Some few sales of building and bridge shapes constitutes the week's trade. A few good building contracts are in the market. Quotations are as follows: For universal plates, 1·80@1·85c.; beams and channels, 1·90@2c; angles, 1·85@1·90c; tees, 2@2·10c.

Merchant Steel.—There is no improvement in this line, sales of the week having been limited to but a small total. Inquiry has increased somewhat and some dealers look for a better trade shortly. Prices are firmly maintained as follows: Tool steel, 5@7·50c.; Bessemer bars, 1·65@1·75c.; smooth finished machinery, 1·95@2c.; tire steel, 2·20@2·25c.

Bar Iron.—Buying continues fair, the car works having bought more during the week. The majority of sales being made are for small lots, but in the aggregate foot up a good total. Common iron is selling 1·50c. and refined 1·60c. Soft steel bars are 1·60c.

Billets and Rods.—The market remains quiet, but few orders having been booked. There is some inquiry for rods, but apparently nobody is after billets. Billets are quoted $24, and rods $31.

Steel Rails.—Some business is being booked, mostly for small lots. The week's sales will probably agregate a couple of thousand tons; $29 is the greatest price.

Old Rails and Wheels.—There are no reported sales of either old iron rails or wheels during the past week. Quotations are: Old iron rails $16@$16.50, and old wheels $13.

Cleveland, O. Nov. 28.

(From Our Special Correspondent.)

The season's receipts of ore are very close to an end. Lake Superior is closed. At Escanaba, the only active shipping port on Lake Michigan, 40 boats were reported early this week lying for cargoes of ore, with chances that they could not all be loaded this week. The severe weather is making shipment extremely difficult, but great efforts will be made to protract the season. On account of the blockade of vessels at Escanaba little wild chartering has been done this week, but the carrying rate from that port holds firm at $1. These prolonged shipments are bringing down ore that was sold in the spring and there is now little doubt that the wants of the furnacemen during the winter months will be cared for.

Sales of ore are very few in number and small in quantity and consist chiefly of non Bessemer grades. Prices are not so strong as they have been and can be quoted off 25c. Buyers and sellers of ore for next season's delivery do not yet know just where they stand with relation to each other, and active negotiations for contracts have not been undertaken. While there may be plays for position, sellers are preparing for a large output of ore next season. Mining will be prosecuted with vigor on all the ranges during the winter. Stock-piles at Lake Erie ports are not so heavy as usual, for the transfer from boat to car and thence direct to furnace has been the general practice this season and the stocks at hand, when navigation opens in the spring, are expected by ore shippers to have entirely disappeared.

With few sales prices for the week are as follows: Standard specular Bessemer, $4.50@$4.75; standard hematite Bessemer, $4@$4.25; standard specular non-Bessemer, $3.50@$3.75; standard hematite non-Bessemer, $3@$3.25.

Pittsburg. Nov. 28.

(From Our Special Correspondent.)

Raw Iron and Steel.—Business since our last has continued to show the moderate activity noted then. The distribution on account of current and old orders has been liberal, but new business shows a slackening which is in part due to delayed consumption of previously bought stocks, and in part to lower prices and a feeling of uncertainty about the future of values. The tendency of iron and steel values has continued downward as the result of increased pressure to sell; but although prices of Bessemer pig and steel billets have receded more than half as much as they had previously advanced, manufacturing prices have remained inflexible, and

the indications of higher prices for coke and ore for 1896 induce the managers of leading furnaces and steel works at leading points to decline to book orders for next year at the rates now prevailing. The Youngstown workingmen are happy; on last pay day the industrial plants in this vicinity distributed a semi-monthly payroll of $200,000 among their employees, all drawing pay for full time. All the large mills are booked full of orders to January 1st, insuring a steady run, and but few are taking contracts beyond that date except on conditions that they will be filled at prices that may prevail when the orders are filled, there being a strong feeling that with the opening of the new year prices will materially advance. At no time in the history of the iron trade in the Valley has there been so much freedom from friction between employer and employee as among the mills as at present; the scale agreement is entirely satisfactory. Iron manufacturers are rigidly enforcing a rule at all the mills here to employ only men who are strictly temperate; if an employee is arrested for drunkenness or charged with disturbance he is promptly notified to call at the office and secure his pay as his services are no longer desired. The furnaces of Andrews & Hitchcock have been repaired and now in blast, one running on Bessemer, the other on foundry iron. The iron and steel trade continues to show weakness. Orders for finished material come in slowly, while the market has been unsettled by sales of Bessemer pig and steel billets held by speculators; the result is a general weakening in tone, and considerable competition for the orders that do come upon the market. With production at the maximum, and a reduced volume of business, lower prices are inevitable. The knowledge that a large amount of material will be needed by the railroads and by other consumers prevents manufacturers from indulging in extreme competition. In the local market producers of standard brands have paid little attention to the concessions made by new comers who must dispose of their output.

The volume of transactions shows up well, prices for this year's delivery being weak and lower for the first quarter of 1896. The market is firm with sales of Bessemer at $14. Billets neglected with a slight decline in values. On the whole prices have held up fairly well.

COKE SMELTED, LAKE AND NATIVE ORE.

Tons.		Cash.
3,000	Bessemer, Jan., Feb., March, Valley	$12.50
3,000	Bessemer, Nov., Dec., Pittsburg	13.00
2,000	Bessemer, Prompt, Pittsburg	13.00
2,000	Bessemer, Jan., Feb., Pittsburg	14 00
1,500	Bessemer, Nov., Dec., Pittsburg	12.75
1,500	Bessemer, Nov., Dec., Valley	12.35
1,500	Bessemer, Nov., Dec., Valley	12.25
1,000	Bessemer, Jan., Feb., March, Pittsburg	14 00
1,000	Bessemer, Nov., Dec., Valley	12.25
1,000	Bessemer, Nov., Dec., Valley	12.25
800	Bessemer, Nov., Dec., Valley	12.00
500	Bessemer, Dec., Valley	12.25
500	Gray Forge, prompt, Pittsburg	12.25
500	Bessemer, Dec., Pittsburg	13.75
100	No. 2 Foundry, Pittsburg	14.50
50	No. 3 Foundry, Pittsburg	13.75
50	No. 1 Foundry, Pittsburg	14.80

CHARCOAL.

50	No. 1 Foundry	$17.80
50	No. 2 Foundry	17.25
50	Cold Blast	24.00
50	Cold Blast	24.00

BLOOMS, BILLETS AND SLABS AT MILL.

1,000	Billets, prompt, Wheeling	$18.50
1,000	Billets, Dec., Wheeling	18.50
1,000	Billets, Nov., Dec., Pittsburg	19.00
500	Billets, Dec., Pittsburg	18.75
500	Billets, Dec., Pittsburg	18.75

SKELP IRON.

400	Sheared	$1.60 4 m.
325	Wide gr'v'd	1.40 4 m.
275	Nr'w gr'v'd	1.40 4 m.

SKELP STEEL.

320	Sheared	$1.50 4 m.
250	Wide gr'v'd	1.30 4 m.
200	Nr'w gr'v'd	1.30 4 m.

FERRO-MANGANESE.

150	80%, Delivered	$54.00
50	80%, Delivered	56.60
50	85%, Delivered	56.25

MUCK BAR.

500	Neutral, deliv	$21.00

BLOOMS, BILLETS AND BAR ENDS.

400	Bloom Ends	$15.00

STEEL WIRE RODS.

500	5-gauge at mill	$27 00

SHEET BARS.

550	at Maker's mill	21.50

SPELTER.

50	Prime Western	$3.50

OLD RAILS.

1,000	Iron Rails, Dec., Jan., Feb., Youngstown	$18.00
500	Steel Rails, Dec., Pittsburg	14.50
300	Short Steel Rails, Pittsburg	$15.00

SCRAP MATERIAL.

300	Heavy Steel Scrap gross	$14 25
300	Cast scrap gross	12.00
200	Old Car Wheels, gross	11.00

Philadelphia. Nov. 28.

(From Our Special Correspondent.)

Pig Iron.—The pig iron market is weak. Prices might be shaded if square offers were made at something under current market quotations, but a canvass shows that the big consumers have no desire at present to enter into arrangements for next year's supplies. The foundries have been a little slack of late. The stove makers have gone as far ahead with stock-making as they care to for the present. The mill people are showing unusal caution about buying. Some mills have a good deal of iron due yet. Sizing up the whole situation, buyers want to see a more active market before buying far into 1896. No. 1, Foundry is $14; No. 2, $13; Forge, $11.75@$12.75. Bessemer furnaces have everything sold. There is a good deal of anxiety felt over Lake ore prices.

Steel Billets.—More buying has been heard of this week in billets. Quite large orders have been placed. Prices are more stable. Makers say quotations are not likely to be reduced, but while consumers are willing to admit the pressure has reached nearly its maximum, they do not care to cover far into the winter until the markets get a little more tone.

Merchant Iron.—There are parties here this week from some interior points in the State who report that many mills are almost out of big orders and are now depending on small trade. Some large buyers have promised to call by December 15th. Mill agents try to chase in business by using the argument that after the holidays everybody will want more or less iron, and that the concessions now possible will not be within reach then. Prices, 1·30@1·60.

Skelp.—Quoted at 1 35 for grooved. The mills are nearly all ready for new business.

Sheet.—The sheet mills are all doing a good retail trade, a sort of business that belongs to stores. Sheet iron work is picking up in certain lines, that kind which brings large orders to mills.

Pipes and Tubes.—The pipe mills are shading prices with a view of capturing large orders.

Merchant Steel.—The factory and shop demand for steel has its ups and downs, but consumption moves along at an even pace, and quotations to-day are strong.

Plate and Tank.—Large buyers could buy to advantage this week. Quotations have been sent out within a day or two for certain jobs that look like a break, but the terms are strictly private. Small orders of tank steel, 1·60. Universal plates, 1·70. Shell, 1·90. Flange, 2·10.

Structural Material.—Summer orders are making things lively at mills. New orders are slow. Winter work is in sight but specifications are slow. Angles, 1 65. Beams and channels, 1·70.

Steel Rails.—Stand and sections are $28. The drop in slabs suggests lower quotations on rails.

Old Rails.—Prices keep up at $16.50@$17, despite a sluggish demand.

Scrap.—Choice railroad delivered sold at $15 yesterday.

METAL MARKET.

NEW YORK, Friday Evening, Nov. 29, 1895.

Gold and Silver.

Prices of Silver per Ounce Troy.

Nov.	St. Ex.	London Pence.	N. Y. Cts.	Value of sil. in $1.	Nov.	St. Ex.	London Pence.	N. Y. Cts.	Value of sil. in $1
23	4·89	30¾	67¾	·521	27	4·88¾	30¾	67¼	·526
25	4·88¾	30¾	67¾	·521	28	.....	....	....	....
26	4·88¾	30¾	67⅞	·521	29	4·88¾	30⅛	67⅛	·519

Although not usually the case, silver has participated in the general decline in London. The decline has been slight, but indicates the sympathy of silver with exchanges where there is no absolute relation. Shipments have been free, and no considerable amounts ore held in stock here.

The United States Assay Office at New York reports the total receipts of silver at 86,000 oz. for the week.

Gold and Silver Exports and Imports.

At all United States ports, October, 1895, and years 1895 and 1894 in coin and bullion:

	Gold.		Silver.		Total excess, Exp. or Imp.
	Exports.	Imports.	Exports.	Imports.	
Oct..	$1,873,897	$1,787,776	$4,594,447	$1,325,127	E. $3,355,441
1895..	75,064 179	30,627,715	4 3,259,057	9,305,791	E. 78,389,730
1894..	91,589,322	18,294,010	39.744,139	8,309 348	E.194,730.103

Adding the exports and imports in ores to those in coin and bullion, we have the following statement for the ten months of the present year to October 31st:

	Exports.	Imports.	Excess.
Gold	$75,404,642	$32,141,029	E. $43 263,613
Silver	43,458 882	19,562,688	E. 23,896,194
Total	$118,863,521	$51,703.717	E. $67.159,807

The statement includes all United States ports, the figures being furnished by the Bureau of Statistics of the Treasury Department.

Gold and Silver Exports and Imports, New York

For the week ending November 29th, 1895, and for years from January 1st, 1895, 1894, 1893 and 1892:

	Gold.		Silver.		Total Excess, Exp. or Imp.
	Exports.	Imports.	Exports.	Imports.	
We'k	$1,283,724	$4,540	$670,300	$8.920	E. $1,940,564
1895..	64,248.181	27,517,773	35.330,193	1,510,012	E. 70,550,592
1894..	85,558,165	16,297,834	30,866,487	1,575,245	E. 98.551,573
1893.	70,424,114	62.714.491	30,001.035	3,119,555	E. 34,591.103
1892..	61.634.853	8.292 588	20,654,756	2.947.303	E. 71.049,718

Of the gold exported for the week $66,810 went to the West Indies, the balance to London; the silver all went to London. The gold imported came from the West Indies; the silver from South America.

FINANCIAL NOTES OF THE WEEK.

Business has been comparatively quiet during the week. While no especial incident has marked the week, it is evident that the fall trade is over and the lull which usually marks the holiday season is beginning, somewhat earlier than usual. This quiet, however, does not appear to be due to any unfavorable circumstances, but is rather the break between the seasons, and it has not caused any cessation in manufacturing activity.

The building trades all over the country report a marked activity, which is always a sign of general prosperity. In all the larger cities an unusual number of new buildings are either in progress or planned, and the demand for building materials from the smaller towns and villages has been very large. The indications are that this will continue for some time to come.

The speculative markets continue dull and inactive and have been unfavorably affected by the uncertain condition of affairs abroad, and to some extent also by the renewal of gold exports on a considerable scale. It has been constantly asserted that the semi-panic abroad would turn attention to American securities; but this is not at all likely to be the case. Our Paris correspondent recently called attention to the fallacy of the time-honored belief of speculators in this respect. The fact is that a crisis such as that through which the exchanges of London and Paris are now passing stops for the time the buying of all securities, no matter what their quality. Two reasons have tended this year to limit speculation on the part of the public. One is that for months the stock market in New York has been dominated by a powerful bear party, and the outside public, as a rule, does not speculate for a fall. The other is that the great majority of business men have had their time and capital so fully employed that both opportunity and disposition to speculate have been lacking.

The meeting of Congress next week attracts very little attention, chiefly because of the general belief that nothing will be done. The President's message will undoubtedly recommend some measures of currency reform; but such statements as the leaders of the dominant party have given out indicate that its policy will be to do as little as possible at the coming session. No one expects any decided action on currency matters or on any others which will materially affect business.

Gold exports have been somewhat lighter this week. The shipments by Wednesday's steamers from New York amounted to $1.210.000, and $1,750.000 more are reported taken for export by Saturday's steamers. The amount is less than was anticipated, chiefly because of an unexpectedly large amount of merchandise bills offered. The gold furnished by the Sub treasury in New York has been chiefly in the form of bars, very little coin going out.

The following circular was issued from the Treasury Department on Saturday last, November 23d, to Sub-treasury officers: Department instructions of July 9th and August 23d, 1886, requiring you to reject and place a distinguishing mark on all gold coins presented to your office for deposit, which are found to be below the least current weight, are hereby so modified as to instruct you when requested to accept all such coins at valuation in proportion to their actual weight, such valuation to be determined by deducting from the nominal value four cents for each grain, troy, found below the standard weight of each piece. All light-weight pieces thus received by you are to be held in the cash of your office separate from full weight coins, and each bag of such coins to be plainly marked with the amount of the face and actual values of contents. If the depositor should prefer to have the pieces that are found to be below the least current weight returned to him, you will, before returning them, stamp each piece with the distinguishing mark referred to in department letter.

This circular was followed by instructions to the Sub-Treasury officers to receive from banks and others United States gold coin in exchange for paper currency. Deposits are required to be made in sums or multiples of $500, and the express charges on the gold coin and the paper currency returned therefor will be borne by the Treasury department. Except in special cases the Treasury has never before paid express charges both ways on gold deposited in exchange for paper and on the paper. The banks have for years endeavored to induce the Treasury to do this. Under this new temporary arrangement the Treasury pays the charges heretofore borne by the bankers. The rate paid by the government under its contract with the express companies, however, is less than the rate charged individual shippers The government rate in all territory east of the Pacific Slope is 50c. per $1,000 for gold and 20c. per $1,000 for paper.

The statement of the United States Treasury on Wednesday, November 27th (the 28th being a holiday), shows balances in excess of outstanding certificates as below, comparison being made with the corresponding day of last week:

	Nov. 21.	Nov. 27.	Changes.
Gold	$87,804 557	$82,156,325	D. $5,648,232
Silver	13.742,287	13,705.331	D. 36,956
Legal tenders	56.627.010	62.225.450	I. 5,598.440
Treasury notes, etc.	24,286,790	23,600,810	D. 685,980
Total	$182,460,644	$181,687,916	D. $772,728

Government deposits with national banks on the same date amounted to $14,825,787, a decrease of $591,494 during the week.

Total United States Treasury notes issued under act of July 14th, 1890, in general circulation and in the Treasury, $139,953,280. Against these are held in the Treasury 15,951,608 coined standard silver dollars, and silver bullion purchased at a cost of $124,001,762, making a total of $139,953,370.

The statement of the New York banks—including the 66 banks represented in the Clearing House—for the week ending November 23d gives the following totals, comparisons being made with the corresponding weeks in 1894 and 1893:

	1893.	1894.	1895.
Loans and discounts	$405,201,700	$495,003,400	$492,711,600
Deposits	475,311,700	592,371,200	525,170,6 0
Circulation	12,831,900	1,154,400	13,956,300
Specie	109,993,600	96,059,500	66,284,600
Legal tenders	88,669,500	118,060,900	84,603,000
Total reserve	$189,663,100	$215,120,400	$150,887,6'0
Legal requirement	118,827,925	148,092,800	131,292,650
Surplus reserve	$70.835,175	$66,027,600	$19,594.950

Changes for the week this year were an increase of $516,700 in specie; decreases of $809,100 in surplus reserve, $221,900 in loans, $1,590,300 in legal tenders, $1,058,000 in deposits and $208,000 in circulation. There has been an increased shipment of currency, chiefly to Southern points, and to this are due the decreases in deposits and legal tenders.

For convenience of comparison we have grouped together in the table below the specie holdings of the leading banks of the world at the latest dates covered by their reports. The amounts are reduced to dollars, and comparison is made with the holdings at the corresponding dates last year:

	Gold.	Silver.	Total.
Asso. Banks of New York	.. ..	.....	$66,284,600
1894	.....	.....	96,059,500
Bank of England	$213,020,000	.....	213,020,000
1894	174,780,000	.....	174,780,000
Bank of France	391,380,000	$242,490.000	633,780,00
1894	396,970,000	248,150,000	645,120,000
Imp. Bank of Germany	... .	.....	229,900,000
1894	....	.....	268,900,000
Austro-Hungarian Bank	117,180,000	64,508,000	181 688,000
1894	76,9 0,000	71,182,000	148,082,000
Netherlands Bank	20,(93.000	34,101,000	54,194,000
1894	20,395,000	34,092,000	54,487,000
Belgian National Bank	.....	.....	20,638,000
1894	... .	....	25,224,000
Bank of Spain	40,022,000	54,107,000	94,129,000
1894	40,021,000	51,023,000	91,044,000
Bank of Italy	59,725,000	9,415,000	69,140,000
1894	.....	.....	.....
Imp. Bank of Russia	351,560,000	50,355,000	401,915,000
1894	.....	.....	.....

The return for the Associated Banks of New York is of date November 23d; all the others are of date November 28th, except the Bank of Italy, whose return is dated October 20th, and the Bank of Russia, October 16th-28th. The New York banks do not report silver separately, but the specie carried is chiefly gold coin. The Bank of England reports its gold only, not considering silver at all. The Imperial Bank of Germany and the Belgian National Bank do not report gold and silver separately.

Shipments of silver from London to the East for the year to November 14th are reported by Messrs. Pixley & Abell's circular as below:

	1894.	1895.	Changes.
India	£4,415,313	£3,177,395	D. £1,237,918
China	2,599,347	1,580.610	D. 1,018,737
The Straits	1,166,746	689,953	D. 476,703
Total	£8,182,406	£5,447,958	D. £2,733,448

Receipts for the week this year were £26,000 from the West Indies and £140,800 from New York, a total of £166,800. Shipments were £82,638, all to India.

Indian exchange has varied only a fraction, and the full amount of 50 lakhs of Council bills offered in London was taken at an average of 13¾d. per rupee. The demand for exchange continues large, and the increase in sales of bills over last year has in part balanced the decrease in silver shipments. There has been no movement toward shipping any of the large balance of £13,000,000 held by the Japanese government in London.

The new issues of capital reported in London this year up to November 16th amounted in all to £97,329,503, which compares with £62,412,645 in the corresponding period last year; £42,505,061 in 1893; £75,422,858 in 1892, and £99,797,176 in 1891. The amount this year is the largest on record, with the exception of 1891.

Domestic and Foreign Coins.

The following are the latest market quotations for the leading foreign coins:

	Bid.	Asked.
Mexican dollars	$0.53¾	$0.54½
Peruvian soles and Chilean pesos	.47½	.49
Victoria sovereigns	4.87	4.90
Twenty francs	3.86	3.90
Twenty marks	4.75	4.80
Spanish 25 pesetas	4.78	4.83

Other Metals.

Copper.—The market continues flat, very little buying being done, and quotations continue to sag off. Lake copper has been selling in a small way at about 11c., but bids at slightly lower prices are now being solicited, which indicates that most probably one or the other producer is willing to meet the market. In the absence of actual business, we have to quote 11c. Electrolytic copper has now been offered rather lower, but no business is reported. We have, however, this week to reduce prices to 10¼@10⅜, for cakes, wirebars or ingots, and from this quotation the usual ¼c. has to be deducted for cathodes. Casting copper was pressed for sale from some quarters, and sales have taken place at from 10@10⅛. These are again very material declines without business of any consequence. We notice that the exports for the last few weeks commenced to show large increases, and the indications are that they will be very heavy during December; and, as consumption here continues good, it may be reasonably expected that we shall see a large business before the end of the year.

The foreign market continues depressed and is rather irregular. G. M. B. opened at £42 15s., advanced to £43 10s., but lost part of it and closes at £43@£43 2s. 6d. for spot and £43 7s. 6d@£43 10s. 3d. for three months prompt. Fine copper has been pressed for sale, partly from English refiners, but more from American producers and exporters, and rather low prices have been accepted. For refined and manufactured we quote: English Tough, £45 15s.@£46 5s.; Best selected, £46 10s.@£47; Strong Sheets, £52@£53; India Sheets, £50@£50 10s.; yellow metal, 4½d.

A large business is also reported in furnace material, deliveries being extended up to the middle of next year. This accounts for the English refiners being sellers of fine copper for the same period.

A London dispatch just received says that in his report on the Anaconda mine, Mr. Hamilton Smith says that, even with a low range of prices, profits ought to be realized that will give a dividend of $2.50 a share in 1896.

Chilean Copper Market.—Messrs. Jackson Broth ers write as follows from Valparaiso, under date of October 12th: The sales on this side are hardly up to the average, but among them one has been made for shipment to the United States which is quite an event, over 9¼ years having elapsed since any copper has been exported from Chile to that quarter. The increase in exports from Chile for the first nine months of this year amounts to about 13,500 quintals over the corresponding period of 1894. Sales noted for the last fortnight amount to 11,044 quintals. We quote for bar copper, $58.05 (Chilean) f. o. b. per metric quintal; for regulus 50%, $24.68 f. o. b. per metric quintal; for copper ores, 10%, $3.25, per metric quintal.

Copper Exports.—The exports of copper from the port of New York during the week ending November 29th, as reported by the New York Metal Exchange, were as follows:

Copper:		
Liverpool—Bovic	Pigs	100 tons.
Rotterdam—Obdam	Cakes	25 "
Bremen—Havel	Bars	30 "
Liverpool—Cufic	Pigs	100 "
Leghorn—Pawnee	Ingots	10 "
Matte:		
Liverpool—Bovic		75 "
" Adriatic		256 "
Swansea—Jersey City		180 "

Exports of copper from Baltimore for the week ending November 27th are reported by our special correspondent as follows:

Copper:		
Hamburg—Sicilia	41 Cakes	22 952 lbs.
" "	2,490 Ingots	44,800 "
Liverpool—Templemore	497 "	8,960 "

This is a total of 265 long tons of copper, and 511 tons of matte from New York, and of 34 tons of copper from Baltimore; making in all 299 tons of copper and 511 tons of matte exported for the week.

Tin.—There is nothing of special interest to report. The demand remains good, but prices are again slightly lower, reflecting the foreign markets. We quote for spot 14·30@14·40, and for futures 14·40 @14·50.

In London the opening price on Monday last was £64, and during the whole week fluctuations were rather insignificant, and the latest quotations received are £63 17s. 6d.@£64 for spot, and £64 10s. @£64 12s. 6d. for three months prompt.

Lead.—The lethargy has finally lifted, and we have to report a material advance. As soon as the pressure to sell on the part of Western refiners ceased, the market assumed a healthier tone, and prices quickly advanced to 3·27½@3·30 New York. Reports from the Western centers are also better, and the surplus which had accumulated in producers' hands has evidently now been taken care of. The exports of lead to Europe are very heavy.

In London the scarcity of lead continues, and prices again show an advance, being now quoted £11 12s. 6d.@£11 3s. 9d. for Spanish and 2s. 6d. more for English.

St Louis Lead Market.—The John Wahl Commission Company telegraphs us as follows: Lead is quiet, but steady, with a little more inquiry. The latest sales are on a basis of 3c., and at this price considerable more metal can be sold than is at present available.

Spelter.—Confidence has not yet been restored, and production being rather heavy and orders scarce, prices have again sagged off somewhat. From St. Louis sales are reported at 3.20 and somewhat below, and we have in consequence to reduce prices to 3·45@3·50, delivered New York.

Abroad good ordinaries are quoted at £15 and specials £15 5s.

Antimony continues dull; Cookson's 7¾; U. S. Star 7¼, and Hallett's 6·90@7c.

Aluminum.—The latest price list of the producers quotes No. 1 metal, over 98% pure, in rolling ingots, 55c., 52c. and 50c. per lb., the prices being respectively for small lots, for 100-lb. lots and for ton lots; No. 1 metal, in ingots for remelting, 53c., 50c. and 48c. per pound; No. 2, over 94% pure, in ingots for remelting, 50c., 48c. and 45c per lb. Castings are quoted 60c. per lb. up, according to pattern and size of order. Sheets, 56c.@$3.50 per lb., according to size and thickness. Angles, channels, beams, etc., in orders of not less than 1,000 lbs., $1 per lb. with a special discount for large orders.

In London, ingots, 98% pure, are quoted 18½@ 19d. per lb. for small lots; 17@18d. per lb. for large orders.

Bismuth.—Quotations vary from $1.30 to $1.75 per pound, New York, according to grade and size of order. The demand, which is chiefly for use in bearing metal alloys, is increasing.

Iridium.—The demand is very small, and only occasional sales are made. The price varies from $25 to $35 per ounce, according to order and quality.

Magnesium.—The maker's prices are as follows, at works in Germany: 27 mark per kilo. -equivalent to $2.94 per lb.—for ingots; 26 marks per kilo. for bars; 36 marks per kilo. for powder, and 38 marks for ribbon and wire. For orders of less than 10 kilos., 1 mark per kilo. must be added for ingots of bars, and 2 marks for wire, etc.

Monazite.—The following quotations have been furnished us by parties dealing extensively in the mineral: Monazite containing 1½ to 3% thorium oxide, 8c. per lb.; 2 to 3%, 10c.; 3 to 4%, 15c.; 5 to 7%, 25c.; 7 to 9%, 30c.; 9 to 11%, 35c. per lb.

Nickel.—A little more demand is reported, but prices are steady and quotations continue about 34@37c. per lb. The London quotation is steady at 13@15d. per lb.

Phosphorus.—Quotations current are 50@52¼c. per lb., New York or Philadelphia.

Platinum.—Prices are firm, without change, and quotations are $12.50@$13 per ounce, New York. The London quotation is firm at 47@48s. per ounce.

For chemical ware, best hammered metal, Messrs. Eimer & Amend, New York, furnish the following quotations, the prices given being respectively for orders of over 250 grams; for orders of over 100 grams and less than 250 grams, and for orders of less than 100 grams: Crucibles and dishes 46c., 47c. and 48c. per gram. Wire and foil are 43c., 44c. and 45c. per gram. The current retail price for crucibles is 60c. per gram.

Quicksilver.—No change in prices is reported this week, and we continue to quote $40 per flask, New York. The London price is £7 7s. 6d. per flask, with £7 5s. quoted from second hands.

Imports and Exports of Metals.—Imports of metals into this port for the week ending November 21st, as reported by the New York Metal Exchange, were as follows: 280 tons spiegeleisen, 313 tons ferro-manganese, and 36,948 boxes tin and black plates from the United Kingdom; 1,360 tons spiegeleisen, 225 tons Straits tin, and 30 tons Banka tin from Holland; 5 tons ferro-chrome from Bordeaux; 350 tons tin from Singapore; 3 tons antimony, from Hamburg, and 13 tons antimony ore from Mexico.

Exports of metals from this port for the week were: 17 tons nickel to Hamburg; 86 tons zinc skimmings to Bristol; 62 tons sulphate of copper to Mexico; 25 tons sulphate of copper to Genoa; 42 tons tin scrap to Antwerp.

Arrivals at Baltimore for the week ending November 22d were as follows: 133 tons ferro-manganese, and 300 boxes tin plates from Liverpool.

Arrivals at Philadelphia for the week were: 9,150 tons iron ore from Cuba; 2,402 tons iron ore from Bona; 3,400 tons manganese ore from Poti.

Exports of metals (other than copper) from the port of Baltimore for the week ending November 27th are reported by our special correspondent as follows: 135,989 lbs. spelter and 13,782 lbs. steel to London, 563,975 lbs. washed metal to Liverpool.

CHEMICALS AND MINERALS.

NEW YORK, Friday Evening, Nov. 29.

Heavy Chemicals.—During the past week the market for heavy chemicals has been duller than for the two months past. Caustic soda continues fairly firm in prices, but little business was done. The demand for alkali and carbonated soda ash has been light and confined chiefly to small lots for prompt or immediate delivery. Bleaching powder is unchanged, with a fair business for future delivery. The other articles on the list are featureless. We quote: Caustic soda, 2·15@2·25c. for spot, according to test; Carbonated soda ash, 48%, is ·95 @1c., according to quantities and deliveries. Alkali is ·85@1·05c., according to test and package. Bleaching powder, $1.85@$1.95. Sal soda, 65@70c.

Acids.—There is no change to report of the acid market. The demand continues good, and prices are correspondingly firmer, though there has been no

advance. We quote per 100 lbs. in New York and vicinity, in lots of 50 carboys or over as follows: Acetic acids (in barrels). $1.40@$1.70. Muriatic acid, 18°. 75@80c.; 20°, 80@90c. Nitric acid. 36°, $3.50 @$4; 40°, $4 @$4.50; 42°, $4.75@$4.25. Oxalic acid, $7.10@$7.60. Mixed acids, according to mixture. Sulphuric acid, 66°, 75@85c.; chamber acid, $6.50@ $7.25 per ton at factory. Blue vitriol is in demand, with sales at $3.90@$4.10 according to size of order.

Brimstone.—We quote for shipments, best unmixed seconds, $15@$15.25. Thirds are 25@50c. less. Spot or nearby is $16.50 for seconds.

Fertilizing Chemicals.—The demand from the South keeps up and several sales of ammoniates and potash salts are reported this week. Quotations are as follows: Sulphate of ammonia, gas liquor, $2.50@$2.55; bone, $2.40@$2.50. Dried blood, high grade, $1.85@$1.95; low grade, $1.60@$1.70 per unit. Azotine, $1.80@$1.90. Concentrated phosphate (30% available phosphoric acid), 70@71½c. per unit. Acid phosphate, 13% to 15%, av. P_2O_5, 57c. per unit at seller's works in bulk. Dissolved bone black, 17% to 18%, P_2O_5, 90@92c. per unit. Acidulated fish scrap, $12, and dried scrap with few or no sales, nominally $21 f. o. b. fish factory. Tankage, high grade, $19@$20; low grade, $18@$19. Bone tankage, $21; ground bone, $19@$20. Bone meal, $21 @$22.50.

In lots of 50 tons on contracts we quote, per 100 lbs.: Double manure salts, 48-53% (basis of 48%): New York, Boston and Montreal, $1.10; Philadelphia and Norfolk, $1.12½; Charleston, Savannah, Wilmington, N. C., and New Orleans, $1.15. Sulphate of potash, 90%, and minimum, 96% respectively (basis of 90%): New York, Boston and Montreal, $2.08@ $2.10; Philadelphia and Norfolk, $2.10½, Charleston, Savannah, Wilmington, N. C., and New Orleans, $2.13.

Muriate of Potash.—Quotations for lots of 50 tons are as follows: 80-85% and minimum 95%, respectively (basis of 80%): New York, Boston and Montreal, $1.78; Philadelphia and Norfolk, $1.80½; Charleston, Savannah, Wilmington, N. C., and New Orleans, $1.83.

Kainit.—Prices for kainit (minimum 23%) are as follows for invoice and actual weights respectively: New York, Boston and Philadelphia, $8.80; Norfolk, $9.15; Charleston, Savannah, Wilmington, N. C., and New Orleans, $9.55.

Nitrate of Soda.—We quote spot, $1.82½@$1.85; arrivals, $1.75@$1.80, according to position.

Liverpool. Nov. 20.

(Special Correspo dence of Joseph P. Brunner & Co.)

There is no great stir in chemicals at present, although some lines are very scarce for prompt delivery, particularly Caustic Soda and Bleaching Powder.

Soda ash is dull and little doing. For tierces, makers' range is as follows: Leblanc ash, 48%, £4 @£4 5s.; 58%, £4 5s.@£4 10s.; ammonia ash, 48%, £3 10s.@£3 15s.; 58%, £3 15s.@£4 per ton, net cash. Bags, 5s. per ton less.

Soda crystals rather slow, at £2 7s. 6d.@£2 10s. per ton, less 5% for barrels, and 7s. less for bags.

Caustic soda is in fair request, and there is little to be had for prompt delivery. We quote the spot range: 60%, £6 5s.@£6 10s. per ton; 70%, £7 5s.@ £7 10s. per ton, net cash; 74%, £8 5s @£8 10s. per ton; 76%, £9 7s. 6d.@£9 10s., per ton, net cash.

Bleaching powder is also scarce for early delivery, and hardwood is firm at £7 5s. to £7 10s. per ton, net cash, according to export market.

Chlorate of potash is steady at 4½d. per lb, for any position. There are some inquiries, but little actual business reported.

Bicarb. soda in moderate demand at £6 15s. per ton, less 2½% for the finest quality in 1 cwt. kegs, with usual allowances for larger packages.

Sulphate of ammonia is slow, at about £9 2s. 6d.@ £9 5s. per ton, less 2½% for good gray 24@25% in double bags f. o. b. here, according to quality.

Nitrate of soda attracts little attention from buyers, and is easy at £8@£8 2s. 6d. per ton, less 2½% for double bags f. o. b. here, according to quality and quantity.

Carb. ammonia, lump, 3½d. per lb.; powdered, 3¾d. per lb., less 2½%.

Valparaiso, Chile. Oct. 12.

(Special Report of Jackson Brothers.)

Nitrate of Soda.—Business in this article has been next to impossible, even with a drop of 2s. 6d. in freights, owing to the very unfavorable quotations received from Europe. Although the transactions on this side amount to over 500,000 quintals almost all have been among producers or for previously chartered vessels for which cargoes had to be provided. Producers have maintained their prices at 5s. 3d. for 95% and 5s. 5d. for 96% for October-November shipments, and show no inclination to give way for the present. Some sales of 95% for January-February delivery have taken place at 5s. 3d. alongside, but this rate has been previously refused. In the refined quality several parcels have changed hands for the United States at $3.75 (Chilean), and although some inquiry has existed for January-May shipments of this quality for Europe at 5s. 6d. alongside, producers have refused to entertain the limit. The price of 5s 3d. with 2s. 6d. all round freight stands in 7s. 0½d. per cwt. net cost and freight without purchasing commission, while quotations are 6s. 10½d.

The increased disposable tonnage ready for employment, coupled with the inability of exporters to pay prices of nitrate ruling on the coast, have weakened rates, and although some vessels would gladly accept 22s. 6d. to United Kingdom ports, charterers can do no business at over 20s. for nitrate. To the United States we quote nominally 23s. 9d. for Hampton Roads or orders.

MINING STOCKS.

Complete quotations will be found on pages 530 and 531 of mining stocks listed and dealt in at:

New York.	Aspen, Colo.	St. Louis.
Boston.	Colorado Springs.	Paris, France.
Philadelphia.	Duluth, Minn.	Mexico.
Baltimore.	Helena, Mont.	Shanghai, China.
Pittsburg.	Salt Lake, Utah.	Valparaiso, Chile.
Denver, Colo.	San Francisco.	London, England.

NEW YORK, Friday Evening, November 29.

While nothing approaching a "boom" has been experienced in the Consolidated Exchange this week, there is a marked increase in the interest shown in this form of trading. The air is full of "boom" rumors, based doubtless on the activity in Colorado. The committee on mining securities is still at work on a plan to bring some new business to the exchange.

During the week sundry rumors and reports circulated about a new mining stock exchange to be started in this city at once. These reports are conflicting and about all that can be said is the following: A number of men, none of them well-known in Wall street circles, have decided to start such an exchange and claim that certain members of the New York Stock Exchange are the real backers of the enterprise. Papers of incorporation have been drawn up, and the 100 seats will be sold—if possible—at $250. An air of inexplicable mystery seems to envelop the movement. At the Consolidated Exchange several prominent mining brokers say that they were approached, but declined to have anything to do with the attempt, as they believed it foredoomed to failure. At the Stock Exchange no one seemed to know anything definite about the plans of the new organization or about the men identified with it. It is difficult to see how the new exchange could flourish unless it received support from the Stock Exchange. And even in such an event, there certainly is no "boom" here, nor does the public evince much desire to rush into mining stock speculation. Some well-known brokers report that they are doing a good business in Cripple Creek stocks, and a reputable firm, which is a member of the Colorado Springs Mining Stock Association has, we understand, found it worth while to establish private telegraphic communication with Colorado Springs.

Mr. D. V. Donaldson, secretary and treasurer of the Colorado Springs Mining Stock Exchange, has arrived in New York. It is stated that he has come East as a representative of the Exchange, with a view to conferring with people interested in Cripple Creek properties and prospects; also to give facts bearing upon the mines, the Colorado Springs Mining Stock Exchange, and other matters important to be understood by people interested or who would like to acquire interests in Cripple Creek mines. Mr. Donaldson stated to-day in the course of an interview: The boom in Cripple Creek properties is floating some securities of doubtful value. We want to put people on their guard against mining swindles, and, at the same time, to point out properties which have value or legitimately good prospects. Our exchange at Colorado Springs was organized by the business men of the place and is controlled by them. It is run on a business basis. When stocks are listed, we require sworn statements and our attorneys examine carefully into the legality of the issues.

The Comstocks were quiet. There was only one sale of 100 shares of Consolidated California & Virginia at $2.30; of Comstock Tunnel stock 2,550 shares were sold at 8c. Other sales were: 150 shares of Best & Belcher at 52@70c; 300 Hale & Norcross at $1 25@$1.30; 1,300 shares of Mexican at 43@50c.; 200 shares of Savage at 40c.; 100 shares of Union at 55c.; and 400 shares of Yellow Jacket at 30@38c.

There were also sales of 1,100 shares of Barcelona at 5c, and 500 shares of Consolidated Imperial at 4c.

The Colorado stocks have continued the favorites. Of American Flag 1,650 shares were sold at 4@5c., and of Lacrosse 600 shares at 12c. Chrysolite was quiet, only 300 shares being sold, the price, however, advancing from 25c. to 30c. Dealings in Enterprise were heavy this week, a total of 16,700 shares having been sold at 50@65c. Other transactions were: 2,700 shares of Breece at 20@25c.; 100 shares of Iron Silver at 20c.; 1,300 shares of Leadville Consolidated at 13@15c.; 950 shares of Little Chief at 23@24c.; 500 shares of Small Hopes at 90c., and 500 shares of Victor at $5.25.

The largest transactions numerically were in Phœnix of Arizona, which was dealt in at both the Stock and Consolidated exchanges; a total of 79,600 shares was sold at 5@13c. At the close the stock was offered at 12c., with 10c. bid for it.

Other stocks were dealt in as follows: 700 shares of Alice at 35@40c.; 500 shares of Brunswick at 12c.; 200 shares of Castle Creek at 2c.; 1,000 shares of El Cristo at 7@9c.; 500 shares of Horn Silver at $2.35, and 700 shares of Standard Consolidated at $1.75@ 1.90.

Boston. Nov. 27.

(From Our Special Correspondent.)

The market the past week has shown some improvement in the copper stocks, principally in Boston & Montana, which continues to be the favorite. After a strong opening at $67¾ it declined to $66⅛, rallied to $71¼ to-day, and closed at $71. Sales about 31,000 shares. Butte & Boston was also quite active, selling off to $14⅝, but closing up firm to-day at $16¼.

The fourth dividend of the year of $5 per share was announced by the Calumet & Hecla, but it had no effect upon the market price of the stock, which sold in a small way at $300. There was some talk of an extra dividend, but it is hardly to be expected, as a good portion of the surplus over $20 has gone into the new land purchase. Tamarack sold at $135 and $136 and was fairly firm. Quincy was steady at $120 with moderate sales.

There was but little doing in Osceola or Kearsarge although both were firm, the former at $25½@ $26, and the latter at $16@$16¼.

Franklin was affected by the loss by the fire at the mine and declined to $11, with later sales at $11½.

Atlantic declined to $15¾ but rallied later and sold at $16½. Tamarack, Jr., sold down to $14½ with later sales at $15. Wolverine fell off to $5⅞ and closed at $6.

A sale of 500 Bonanza is noted at 30c., a decline of 5c. from last sale.

The gold mining stocks have inclined to weakness. Merced sold down to $25½, rallied to $29, and closed at $28. Gold Coins Mining declined from $1.25 to $1.20, notwithstanding the favorable showing made by the company for the month of October. Santa Ysabel was steady at $9½. Boston & Cripple Creek was fairly steady at 25c. Santa Rosa sold at $1, which is 25c. lower than the subscription price. Napa Quicksilver sold at $7¼, same as before.

Colorado Springs, Colo. Nov. 23.

(From Our Special Correspondent.)

The rushing business in mining stocks which I reported last week has continued with little signs of abatement. Local and Eastern capital believe in the future of Cripple Creek mines and speculators see good chances for profitable turns.

For the week ending to-day the Colorado Springs Mining Stock Exchange reports sales of 495,617 shares of listed stocks, of a cash value of $1,395,400. and the total sales of unlisted stocks represented $116,413—truly a good record and one of which the association may be proud.

The Board of Trade has not been letting the grass grow under its feet. Its total sales for the week were 8,455 551 of a cash value of $212,927.76. Over 60,000,000 shares, aggregating a cash value of nearly $3,500,000, have been sold since the Board of Trade started its prosperous career.

The youngest exchange, the Consolidated, reports total sales this week of 4,612,485 shares.

BY TELEGRAPH.

Messrs. Gardner & Co. wire us the closing quotations of the Colorado Springs Mining Stock Exchange for the week ending November 28th as follows:

Name of Company.	22	23	25	26	27	28*
Anaconda	.62⅛	.62	.62	....	.64⅜	.....
Argentum-Juniata	.42	.42	.42	..	.45	.....
Cripple Creek Con	.18¾	.19	.20		.26¼	...
Isabella	.39	.40¾	43	.....	.50	....
Mollie Gibson	.39	.40	.40	...	.40	...
Pharmacist	.12⅝	.13⅛	.13⅛	.....	.15	.....
Portland	2.05	2.05	2.05	.....	2.05	.....
Summit	.25¾	.26	.26	....	.26	.....
Union	.24¾	.23	.23½	.....	.26	.....
Work	.10	1 3-4	.10⅜	.....	13	.....

*Holiday.

Cripple Creek, Colo.

(From Our Special Correspondent.)

The Gold Mining Stock Exchange, of Cripple Creek, looks like an assured success, the total amount of sales for the week amounting to 1,572,900 of a valuation of $76,305.10.

The directors of the Exchange have recently purchased two lots on the corner of Bennett avenue and Fourth street, paying therefor $5,000. Plans are out for the erection of a three-story stone and brick building on the site to serve the purpose of the Exchange and the offices. The estimated cost of the building is $30,000. The seats which were taken at $25 each four weeks ago are now selling at the rate of $150 each.

Eastern investors and speculators may rest assured that no stock will be listed on this Stock Exchange which is a little shady or suspicious.

Salt Lake City, Utah. Nov. 23.

(Special Report of James A. Pollock.)

The local stock market during the past week has been marked by a great deal of activity and it is very evident that there is a rapidly growing tendency to invest in the steadily climbing mining shares now offered for sale on the local open market. All classes of people are giving the market considerable attention and among the investors are those who have previous to this year never owned a share of mining stock.

Some little movement was recorded in Ajax, a number of transactions taking place in the neighborhood of 45c. All of the reports from the property are of an encouraging nature. There was nothing new to record from Alliance. Development work is still going on and it is the general opinion that the ore is not far away. Natural Gas did some business, but there is a lack of stability about the security and comparatively few investors are dabbling in it. Some inquiries were made for Anchor, but the buyers and sellers did not get together to any marked extent. Bullion Beck knew no activity. Plenty of the stock is being offered at what would have formerly been called scandalous prices.

Centennial Eureka is held in such strong hands that practically no business is being done in the security. Stockholders look for the usual extra dividend on the first.

Dalton was the "prime mover" of the week. Under a heavy bear movement the stock went down to somewhat near its old figures, but this condition only lasted for two days, when the change came, under quiet offers from the well posted people to take all that was offered below 10c. The small-sized panic was nothing short of silly. No reports contradictory to the good ones of the previous week had been received, in fact, everything was reported to be in the very best shape. The 4c. assessment talk is merely idle gossip, the by-laws prohibiting an assessment of more than 1c. per share. The stock closed with a regain of practically all of its old strength. The connection between the Daly and Ontario from the 900-ft. level of the latter was made during the week and the water was also turned into the new water system. It is anticipated that the opening up of the new country will result in much good for both properties.

Some extensive development work is to be done in Horn Silver. The main shaft, which is now down 1,360 ft., is to be sent down to the 1,500 ft. mark and then connected with the ledge. The mill is doing excellent work. Low quotations continue on the stock, but there is none to be had at the figures given.

There is little Sunshine in the market and the price of that little is very stiff. The mill has not yet got down to smooth ore treatment, but the working is said to be good.

San Francisco. Nov 23.

(From Our Special Correspondent.)

The market opened very quietly and continued dull all the week, while prices were forced down to the lowest point reached for a long time. The 25c. assessment on Mexican and the generally credited report of a coming assessment of 25c. on Consolidated California & Virginia had their full effect in the quotations.

Some of our brokers continue to complain of the dulness and to wonder why we do not have some of the boom which is enlivening the Colorado exchanges. These grumblers cannot or will not see that what we need is a radical change. There is a genuine revival of interest in mining in this State; but people who have money to invest put it in the mines and let the stock market alone. The fact is that the ups-and-downs of the Comstocks and the little advances and reactions engineered by the brokers long ago ceased to interest the public, and they simply leave the exchange to the insiders. No change can be expected until something new is offered.

Consolidated California & Virginia, is quoted at $2.05@$2.10; Hale & Norcross, $1.10@$1.15; Ophir, $1@$1.05; Confidence, 78@80c.; Best & Belcher, 53@54c.; Mexican, 35@36c.; Savage, 31@32c.; Gould & Curry, 23@24c.; Yellow Jacket, 20@21c.

Bodie was sold at 33@34c.; Bulwer, 5@6c. Caledonia is quoted 5@6c.

The Mexican Mining Company has levied an assessment of 25c. per share. The annual meeting has been called for December 3d.

C. O'Connor has resigned as a director of the Mexican Mining Company and Nat T. Messer has been elected his successor.

London. Nov. 16.

On the day when I wrote my last letter, the mining stock market was in the throes of the severest slump since the original South African collapse. The speech of Lord Salisbury at the Lord Mayor's banquet on the same day inspired general confidence throughout Europe, and thus the tone of the Stock Exchange on the Monday following was greatly improved. All through the week the falls have been checked and on the whole prices have risen. There has, however, been comparatively little business done, as the whole attention has been monopolized by the settlement of the fortnightly account. As many as eight failures have been announced, but this number and the extent of the liabilities is less than might have been expected, so that the feeling prompted by the announcements is generally one of relief. In only one case is the failure an important one, and in other cases the failures are perhaps all for the best, as it rids the Exchange of some noisy members. In looking through the making-up prices of this settlement one is struck with the falls as compared with the same prices a fortnight ago, though they are considerably higher than the quotations of last Saturday. It is also noteworthy that the slump has not been confined to mines, but is uniform right through the Stock Exchange list, government bonds, industrial stock, railroad stocks, etc., with the exception of breweries.

In certain quarters there is still a desire to make the world believe that Americans are interesting themselves in South African stocks. The latest rumor circulated is that ex-President Harrison has made $100,000 by investing $500 in this market. This is of course absurd, as General Harrison is certainly not a man capable of such a stroke.

The West Australian market has followed the South African market, but has been on the whole rather more steady. The volume of business has, however, been very small. For a time the floating of new companies has been suspended both on the West Australian and South African market, but with the present improvement arrangements are being made for the publication next week of the prospectuses of several that have been kept back during the slump. The registration of new companies continued unabated.

In the American department there has been very little life and the development of the "American fashion" to which I have referred in several of my letters recently has been considerably retarded by the losses incurred during the slump. The scheme for reconstructing the Elkhorn company reported by me last week is meeting with opposition by some shareholders who think the company should be wound up and the assets discributed, but it is probable that the directors' scheme will be carried out.

The first meeting of shareholders of the Cripple Creek Exploitation Syndicate (of which I have already sent you word) was held this week. From the chairman's speech it appears that it is a development syndicate only; that it secures options on prospects and tests them, and afterwards acting as vendor to other companies. The chairman spoke at great length on the wonderful riches of Cripple Creek, and contrasted its 3 to 10 oz. per ton with South African 12 dwts; but the only thing he said about the properties they had acquired was that the lode on one of their claims assayed 16 dwts.

The following new companies have been registered during the first half of November: The Tehuantepec Exploration and Development Company, Limited, capital £75,000; the Tinto Copper Mines, Limited, capital £100,000, to acquire copper mines in the United States, locality not stated, but evidently bought over by Mr. J. Moyle; the Honeycomb Gold Mines, Limited, capital £100,000, to work gold mines in California; the P. C. Mining and Exploration Syndicate, Limited, capital $12,500, to prospect in British Columbia.

Paris. Nov. 17.

(From Our Special Correspondent.)

So much has doubtless been told you by the cable concerning our crisis in mining stocks here that I am really somewhat at a loss as to what to say. The general stock market has been affected all through by the excitement in the South African stocks, and quotations are lower nearly all through the list—that is, as far as there have been dealings, for really very little was done in anything else besides our Kaffirs. While affairs have not been quite as bad as some of our good friends have tried to make out, especially in London, there was for a day or two a prospect of a serious condition of affairs; but the government and the bankers together have succeeded for the time in supporting the speculators, and have prevented the general selling which was feared at one time. The situation really would hardly have been critical had it not been complicated by the heavy fall in Turkish securities, which are largely held here, and the uncertainty as to affairs in the East. The latter still continues, notwithstanding the utterances of the English Prime Minister, which were evidently shaped to reassure the financial world.

The joint action of the powers in Turkey may do good for the moment, but is too likely to lead to dissensions in the future to be very promising. But what will you have? For the present it is all that can be done, and the British fears of Russia and Germany must be relied upon to prevent our grasping neighbor from playing the same insidious role at Constantinople that she did at Cairo.

Our friends at Vienna have been having a serious crisis of their own, partly due to the Turkish scare, and partly to the over-speculation which seems to be chronic in the Austrian capital.

A report comes from Berlin that the bankers there are anxious to resume the connections with St. Petersburg which were broken some years ago, and that German bankers are negotiating for the conversion and unification of the Russian railroad loans. There is a rumor also, somewhat improbable, I think, of a new Chinese loan to be placed in Berlin.

The recent order nullifying concessions made to English companies for working phosphate deposits in Algeria may cause some complications, and it is probable that indemnities will have to be paid.

The foreign commerce of France for the ten months ending October 31st is reported by the Ministry of Commerce as follows:

	1894. Francs.	1895. Francs.
Imports.		
Food	992,811,000	807,414,000
Raw materials	1,760,096,000	1,699,617,000
Manufactures	452,420,000	473,359,000
Total	3,205,327,500	2,980,340,000
Exports.		
Food	525,748,000	487,315,000
Raw materials	616,127,000	711,878,000
Manufactures	1,257,356,000	1,432,240,000
Postal parcels	59,160,000	84,664,000
Total	2,458,391,000	2,719,097,000
Excess, imports	746,936,000	261,243,0 0

The Bourgeois ministry, it seems, is not satisfied with the troubles it has already on hand, but proposes to have a general investigation of all scandals in administration, old and new. And so the Panama infamy is to be revived—much to the regret of most of us, who believed that that most unhappy affair had been permanently relegated to past history AZOTE.

MEETINGS.

Calumet Mining Company of Cripple Creek, stock holders' meeting, at the office in Colorado Springs, Colo., December 2d, at 10 a. m. The meeting is called for the purpose of making some provision to save the property, which was recently sold at sheriff's sale. The time for redemption of the property expires December 28th, 1895.

Consolidated Asphalt Company, of Kentucky, annual meeting, at the office in New York, December 2d, at 8 p. m.

Difficult Creek Gold Mining and Milling Company, annual meeting, at the office, 305 Lake avenue, Aspen, Colo., December 23d, at 2 p. m.

El Oro Mining Company, annual meeting, at the office in New York, December 4th, at 1 p. m.

St. Louis & Cripple Creek Mining & Tunnel Company, stockholders' meeting at the office 15 North Tejon street, Colorado Springs, Colo., December 3d, at 4 p. m.

DIVIDENDS.

Calumet & Hecla Mining Company, of Michigan dividend of $5 per share, payable December 18th to stockholders of record November 25th.

ASSESSMENTS.

Name of Co.	Loc'n.	No	Dinq.	Sale.	Amt.
Anna	S. D.	4	Dec. 10	Dec. 30	.005
Atlas	"	9	" 7	" 26	.001
Best & Belcher	Nev.	59	" 9	" 30	.25
Bogan	Utah	1	Nov. 18	" 9	.10
Bullion	Nev.	46	Dec. 9	" 30	.10
Bulwer Con.	Cal	11	" 4	" 31	.05
California	"	9	" 3	" 21	.01
Carson C.	Kas.		" 10		.50
Chollar	Nev.	41	" 17	Jan. 7	.25
Cinnabar King	Cal.		" 28		.01
Confidence	Nev.	26	" 18	Jan. 8	.30
Elk Queen	Mont.		Nov. 25	Dec. 5	.07½
Emmett	S. D.	10	Dec. 13	" 31	.02
Exchequer	Nev.	38	Nov. 25	" 19	.05
Gold Bar Con.	Cal.		Dec. 21	Jan. 16	.03
Gould & Curry	"	77	" 10	Dec. 30	.05
Granite Hill	"	12	" 4	Jan. 8	.10
Iowa	Nev.	21	Nov. 26	Dec. 16	.05
Jackson	"	15	" 25	" 24	.25
Jamison	Cal.	7	Dec. 16	Jan. 6	.02
Jones	Utah.		" 14	" 11	.00¼
Marguerite	Cal.	1	" 2	Dec. 5	.10
Mexican	Nev.	53	" 23	Jan. 14	.25
Montreal	Utah.		" 17	" 2	.00¼
Nor. Banner Con	Cal.	37	" 9	Dec. 30	.03
Ophir	Nev.	67	" 9	" 30	.25
South Eureka	Cal.	22	Nov. 4	" 2	.02
Standard G. & S.	"		Dec. 7		.03
Superior	"	1	" 9	Dec. 30	.05
Tetro	Utah	2	" 21	Feb. 1	.01
Transit	S. D.	7	Nov. 16	Dec. 3	.001
Troy	"	8	Dec. 21	Jan. 11	.20
Yellow Jacket	Nev.	60	" 17	" 22	.25

DIVIDENDS PAID BY MINING COMPANIES, OCTOBER AND YEAR 1895.

NAME OF COMPANY.	Location.	Paid in October.	Paid in since Jan. 1.
Adams	Colo.	$6,000	$6,000
Ætna Con	Cal.	10,000	10,000
Am. Dev. & Mg. Co.	Mont.		24,340
Alaska-Mexican	Alaska.	25,000	51,000
Alaska-Treadwell	"	75,000	225,000
Amethyst	Colo.		36,000
Argentum-Juniata	"	39,000	156,000
Bald Butte	Mont.		12,500
Bangkok-Cora Belle	Colo.	3,000	51,000
Belden, F. E. Mica	N. H.	4,000	38,000
Boston & Montana	Mont.		300,000
Bullion-Beck & Champion	Utah.	50,000	325,000
Calumet & Hecla	Mich.	500,000	1,500,000
Centennial-Eureka	Utah.	60,000	330,000
Champion	Cal.	3,400	27,200
Con. Cal & Va	Nev.		162,000
Copper Queen Con.	Ariz.		150,000
Coptis	Nev		1,000
De Lamar	Idaho.	95,000	540,000
Elkhorn	Mont.		50,000
Forepaugh	Colo.		16,000
Gold & Globe	"		11 250
Golden Fleece	"	20,000	152,000
Hecla Con.	Mont.		115,000
Homestake	So. Dak.	31,250	281,250
Hope of St. Louis	Mont.		10,000
Horn Silver	Utah		100,000
Iron Mountain	Mont.		90,000
Jackson	Cal.		2,000
Kennedy	"		184,000
Le Roi	B. C.	25,000	25,000
Mayflower Gravel	Cal		48,000
Mercur	Utah	25,000	200,000
Mollie Gibson	Colo.		50,000
Montana, Ltd	Mont.	191,000	102,300
Mont. Ore Purchasing Co.	"		120,000
Moose	Colo.	6,000	60,000
Morning Star Drift	Cal.	9,600	153,600
Moulton	Mont.		30,000
Mt. Rosa	Colo.		5,000
Napa Con. (Quicksilver)	Cal	20,000	90,000
Nugget	Colo.		5,000
Osceola Con	Mich.		100,000
Portland	Colo.	6,000	180,000
Quincy	Mich		600,000
Silver King	Utah.	37,500	187,500
Smuggler	Colo		350,000
St. Joseph (Lead)	Mo		37,500
Standard	Cal		20,000
Tamarack	Mich.		200,000
Tom Boy	Colo		40,000
Union	"		12,500
Utah	Utah.	2,000	15,000
Victor	Colo.	20,000	200,000
Victor L. & M. Co.	"	3,000	9,000
War Eagle	B. C.		132,500
W. Y. O. D.	Cal.		24,000
Total		$1,267,750	$7,853,440

Readers of the "Engineering and Mining Journal" will confer a favor on the publishers if they will notify the "Journal" of any errors or omissions in the above table.

STOCK QUOTATIONS.

COLORADO SPRINGS COLO.*

Name of Company.‡	Par val	Nov. 19 H.	Nov. 19 L.	Nov. 20. H.	Nov. 20. L.	Nov. 21. H.	Nov. 21. L.	Nov. 22. H.	Nov. 22. L.	Nov. 23. H.	Nov. 23. L.	Nov. 25. H.	Nov. 25. L.	Sales.
Alamo	$1	.06¾	.06¾	.06¾	.06¾	.06¾	.....	.06¾	.06	.06¾	.06¼	.....	.....	7,600
Anaconda	5	.61½	.61	.....	.....	.....	.....	.62½	.60½	.62	.60½	.....	.....	1,500
Argentum J	2	.45	44	.42	.41	.....	.....	.42	.40	43½	40	42	40¼	1,850
Bob Lee	1	.02¾	.....	.02⅝	.02¼	.02⅝	.02½	.02½	.02¼	.02¾	.02⅝	.029	.02⅝	33,000
C. O. D	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cr. & C. C.	1	.06⅝	.06¼	.07⅜	.....	.06½	.06¼	.06¾	.06¼	.....	.....	.....	.....	10,000
Cripple C.C.	1	.17¾	.16¾	.17	.....	.18	.17½	.18¼	.18	.19	.18¾	.21	.19½	57,295
Cr.Creek Ex	1	.17	.....	.....	.....	.....	.....	.17½	.16½	.....	.....	.....	.....	2,000
Croesus	.....	.02⅜	.02⅜	.02⅝	.02¼	.02¼	.....	.0 ⅛	.02	.02	.01⅞	.....	.....	78,0 0
Fanny R	1	.....	.....	.14½	.....	.14¾	.....	.14⅝	.13⅝	.14¼	.14	.....	.....	13,000
Favorite	1	.12½	.....	.12¼	.12	.14½	.....	.14	.11½	.14⅜	.11	.....	.....	2,500
Franklin	1	.....	.....	.02	.....	.02¼	.....	.02¼	.02	.02	.01⅞	.02⅜	.....	20,500
Gold & Gl	1	.23	.....	.24	.23	.22½	.....	.22¼	.22	.22	.20	.....	.....	13,0 0
Good Hope	1	.....	.....	.....	.....	.02	.....	.02¼	.0 ⅞	.02⅛	.02	.02	.....	6,500
Ida May	1	.14½	.....	.....	.....	.....	.....	.15⅛	.13	.14	.....	.....	.....	500
Isabella	1	.35	.32¾	.38½	.36¼	.38¾	.35¼	.39	.38⅝	.40½	.40⅜	.45	.42	94,55
" stamp	...	.....	.....	.....	.....	.....	.....	.36	.35	.....	.....	.....	.....	6,500
Mollie G	5	.40	.....	.....	.....	.40	.....	.41	.39	.41	.39	.40	.....	1,0 0
Mt. Rosa	1	.14	.13⅝	.14¼	.13⅞	.14¼	.14	.14⅛	.14	.15	.14⅜	.15½	.15	27,900
Matao	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pharmacist	1	.15¾	.....	.14⅝	.14½	14	.13¾	.13⅛	.12¾	.13	.12½	.13½	.....	14,000
Portland	1	2.03	2.02⅝	2.03	2.02	2.03	2 02⅝	2.05	2.02½	2.04	2.0	.....	.....	7,025
Rebecca	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rubicon	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Specimen	1	.16	.15¾	.16	.15¾	.....	.....	.16	.15½	.17	.16	.....	.....	14,50
Summit	1	.25	.....	.25	.....	.25	.....	.25¼	.....	.26	.25	.....	.....	5,5 0
Union	1	.23¼	.23¼	.....	.....	.....	.....	.25	.24	.22	.24	.23¼	.23	3,00
Work	1	.09¾	.....	.10	.09¾	.10¾	.10	.10¼	.09¾	.10¼	.0 ⅝	.....	.....	31,650

* Official quotations Colorado Springs Mining Stock Association located in Colorado.

‡ All the companies are listed. Total sales: 4 5,1 0.

COLORADO SPRINGS, COLO.*

Name of Company.‡	Par val	Nov. 19. B.	Nov. 19. A.	Nov. 20. B.	Nov. 20. A.	N v. 21. B.	N v. 21. A.	Nov. 22. B.	Nov. 22. A.	Nov. 23. B.	Nov. 23. A.	Nov. 25. B.	Nov. 25. A.	Sales
Alamo	$1	.06⅜	.07	.....	.....	.06	.06⅜	.06¼	.06⅜	.06⅜	.06⅝	.06	.07	2,000
Anaconda	5	61⅝	.62	.....	.....	.60	.....	.61	.65	.....	.....	.61	.7	3,650
Anchoria-L	1	1.81	2.00	1.75	2.00	1.50	2.30	1.85	2.00	1.90	2.25	1.9	2.25	1,000
Aola	1	.03	.03¾	.03⅜	.03¾	.03¼	.03⅜	.03¼	.03⅞	.03⅜	.3⅜	.03¼	.03½	14,000
Arg'ntumJ	2	.....	.45	.42	.43	.4	.48	.42	.....	.45	.47	.43½	.....	.....
Bankers	1	.19⅞	.2 ¼	.19¾	.19⅞	.19	.19⅜	.1⅝	.19⅜	.18½	.19	.18⅝	.19	14,000
Ben Hur	1	.07⅜	.08	.07⅝	.07¾	.07⅞	.08	.07⅛	.08⅜	.07⅜	.08¼	.08	.....	46,,0
Blue Bell	1	.09½	.....	.09⅜	.08⅞	.08⅝	.....	.09⅛	.....	.09⅜	.10	.3¾	.09½	22,850
Bob Lee	1	.02¼	.02⅜	.02½	.02¾	.02⅝	.02¾	.02⅜	.....	.02¾	.0 ¾	.02⅜	.02½	94,325
Buckhorn	1	.....	.04¾	.04⅜	.....	.04¾	.14½	.04⅜	.04½	.043⅛	.04⅜	.14⅝	.04¾	34,425
Champaig'e	1	.06¾	6.9¼	.01⅜	.012½	.01⅝	.011	.01⅜	.01½	.0 9¼	.011	.01	.012	333 00
C. K. & N	1	.02	.02⅝	.....	.02¾	.01⅝	.01⅞	.01⅜	.02	.01¾	.01⅞	.01¼	.02	57,5 0
Colo.C.& M.	1	.05⅜	.06⅜	.05⅜	.0½	.05	.05⅜	.5⅝	.05⅜	.15	.05¼	.5½	.05¼	75,000
Columbine	1	.03¾	.03⅞	.03½	.03¾	.03½	04	.03⅝	.03½	.03½	.03⅝	.03½	.03⅝	15, 50
Copper M	1	.02¾	.03	.02⅝	.02⅜	.02½	.02⅝	.02½	.02¾	.02⅜	.02⅝	.02½	.02⅞	72 500
C. C. Con.	1	.17⅜	.17⅝	.17⅜	.17½	.17⅜	.18	.17⅜	18	.19½	.20	.19⅜	.19½	41, 50
Cr. & C. C.	1	.06⅜	.16¼	.06½	.06⅝	.05¾	....	.06	.06¼	.5⅝	.06¼	.06¼	.06½	34,350
Defender	1	.01⅜	.014	.013	.013¾	0.1	.....	.010	.011¾	.015	...	.011½	.011¾	149,750
Des Moines	1	.05¼	.05½	.05½	.5½	.01¼	.05¾	....	.05⅝	.05	.05⅝	.05½	.05½	38,0 0
Enterprise	1	.15	.15¾	.16⅜	.16¾	.17⅜	.19⅝	.17	.17½	.....	.....	.17	.20	83, 50
Eureka	1	.01⅝	.0 ⅜	.01½	.01¾	.01⅝	.1⅜	.01⅜	.01⅝	.01⅜	.01⅝	.01⅜	.015⅝	123,50
Fanny R	1	.14⅜	14¾	14¼	.14⅜	....	.....	.14⅜	.15	.14½	.14⅝	.14	.14⅜	8,500
Favorite	1	.....	.....	.09	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Franklin	1	.02	.02⅝	.01⅞	.02	.01⅞	.02	.01⅞	.02	.02	.02¼	.0 ⅜	.02	35 000
Free Coin	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Garfield-Gr	1	.05¼	.05¾	.05½	.05¾	.05¾	.05¾	.05⅝	.05	.05¾	.06	.06¾	.06⅞	26,000
Gold & Gl	1	.22¾	.....	.....	.23½	.2	.23½	.22½	.....	.22½	.23	.22¾	.....	16,000
Gold Eagle	1	.02¾	.....	.1 25	.03¼	.02¾	.02⅜	.04⅜	.....	.02⅝	.02¾	.02⅜	.02¾	85,500
Gold. Age	1	.04½	.04¾	.04¼	.04⅝	.....	.....	.....	.05	.4⅜	.4¼	.03	.04¾	14,500
Gold King	1	.....	.5	.6	.70	.....	.67½	.....	.60	.65	.70	.....	.68	3,250
Gold Res	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gold Stand	1	.13	.13⅝	.12¾	.12⅜	.10	.12	.10⅜	.11	.10¼	.11¼	.10⅝	.11	3,250
Goldstone	1	.02½	.2¼	.02	.02⅜	.01⅞	.2	.01⅝	.2	.01⅝	.02	.2	.02½	67,500
Gould	1	.13¼	.14½	.13½	.14	.13⅜	.14½	.14	.15	.14⅝	.15	.14	.15½	6,25
Gran. Hill	1	.2⅜	.02⅜	.02¼	.0 ⅜	.02¼	.....	.02½	.2⅜	.2¾	.02½	.....	.....	3 ,0 0
Henrietta	1	.0 3	.0 3⅜	.....	.....	.014	.017	.014½	.015	.012	.015	.014	.015⅝	78,0 0
Isabella	1	.35¼	.....	.37⅜	.38¼	.38⅝	.39	.37	.39½	.40⅜	.41	.42¾	.45¾	85,980
Jack Pot	1	.08½	.08⅝	.08½	.0 ⅝	.08⅜	.08¾	....	.09	.02½	.10	.09¾	.1 ⅜	31,637
Jefferson	1	.12⅜	.12¾	.12¼	.12⅝	.....	.12⅝	.....	.....	.11⅝	.12	.11⅝	.....	10,000
Keystone	1	.06⅜	.....	.07	.07¾	.07	.....	.07⅜	.07¾	.07⅝	.....	.18	.....	85,500
Ladessa	1	.02	.02⅜	.01⅞	.02	.01⅞	.02⅜	.01⅞	.02⅜	.01⅜	.02	.01⅜	.02¼	24,500
Maggie R	1	.....	.....	.01	.01⅜	.0 9⅝	.010	.....	.009⅝	.009	.009¾	.008½	.009	15,300
Magna Ch	1	.03	.03¼	.02⅜	.03	.03	.03¼	.03	.03⅝	.03⅜	.03¾	.....	.03⅜	12,000
Matt Fr'ce	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mollie G	1	.41	.41	.40	.40¾	.40⅜	.40⅝	.40	.43	.39	.44	.40⅜	.42½	13,000
Mt. Rosa	1	.13⅝	.4⅝	.13½	.14⅜	.13⅝	.14	.13¾	.....	.14⅝	.....	.14	.....	400
Mutual	5	.07⅜	.07⅝	.07½	.07⅜	.07¾	.08	.08⅜	.09	.08⅝	.08¾	.08¼	.09	30,000
Nugget	1	.14⅜	.15	.14⅜	.15⅛	.....	.....	.14⅜	.....	.....	.....	.....	.....	11 000
Ontario	1	.011½	.....	.014	.014⅜	.013½	.014	.012⅝	.013	.013⅝	.012⅝	.012½	.013	352, 00
Ophir	1	.07⅜	.07⅝	.9	.09¾	.10⅝	.11¾	.10¾	.11	.10⅝	.10⅝	.10⅝	.1 ¾	18,850
OrphanBell	1	.12¾	.14	.13¾	.14	.....	.13⅝	.12⅝	.13	.1 ⅛	.12	.11½	.12⅝	45,150
Pappoose	1	.03½	.03⅝	.03	.03⅝	.02¾	.03⅜	.03⅝	.03¾	.03⅝	.03⅝	.03¾	.3¾	198,000
Pharmacist	1	.15⅜	.16	.14	.14⅜	.14⅜	.14⅝	.12	.13⅝	.13⅜	.14⅜	13	14	9,500
Portland	1	.....	.....	2.0	2.04	2.04	2.0	.....	2.03⅜	2.01	2.1 5	2.02	2.06	1,3 0
Princess E.	1	.011⅝	.012	.011¾	.012¼	.011¼	.012	.011¾	.....	.010⅝	.011	.011	.012	89,000
Prop.sit'n	1	.006⅝	.006⅝	.006	.00 3⅝	.0064	.007	.0 7¼	.007⅜	.0 5⅜	.008	.0063⅜	.0 8	336,000
Reno	1	.0 4¾	.05	.05⅛	.5⅝	.....	.05¼	.5⅝	.05¼	.4⅝	.055⅛	.05	.05⅛	92,880
Red Bird	1	.02¾	.02⅞	.02⅝	.02⅞	.02⅜	.02⅝	.02⅝	.....	.....	.02⅞	.0 ⅜	.2⅝	91,000
Sacram'nto	1	.....	.....	.05⅜	.05⅞	.05⅜	.06	.05⅜	.06⅛	.06⅜	.06⅜	.05¾	.06⅞	464,000
Santa Fe	1	.01⅛	.01⅜	.01⅛	.01⅜	.01⅛	.0 ⅜	.01⅜	.01¼	.01¼	.1⅛	.01⅜	.01⅛	43,000
Silv. State	1	.02	.02¼	.02¼	.02¼	.02¼	.02¼	.02	.02⅛	.02	.02¼	.02¼	.02¼	47,000
Star of W	1	.02¼	.2⅜	.02⅛	.02¼	.02¼	.02¼	.2¼	.02	.....	.02	.02⅜	.2⅜	59,000
St.L. & C.C	1	.05	.05⅜	.04⅝	.05	.04¾	.05	.04⅝	.05	.04	.04½	.04⅞	.....	79,500
Summit	1	.24	.26	.24	.25	.24	.26	.25	.25¾	.....	.25¾	.24	.26	5,600
Temonj	1	.11¼	.15	.11⅜	.....	.11⅜	.12	.11⅜	.12	.11⅜	.11⅜	.11¾	.....	4,000
T. F. T	1	.04¼	.04⅜	.04⅜	.04¼	.04⅜	.0 ¼	.04	.04¼	.03⅝	.04	.03⅝	.04¼	.....
Union	1	.2 5⅜	.3⅛	23	.25	.22	.....	.2 8⅜	.23	.22½	.....	.23	.25⅜	11,500
UnionLeas	1	.33½	.35	.32	.35	.....	.....	.....	.....	.....	.35	.....	.....	.....
Virginia M.	1	.4 3¼	.03½	.03¼	.03⅜	.03¾	.03¾	.4 3	.4 3¼	.03	.04	.03	.03½	2,000
Wh. of For.	1	.009½	.010	.01⅛	.01⅝	.01⅛	.011	.01	.011¾	.0105	.0103⅜	.0 9⅝	.0 0⅝	62,600
Work	1	.10	.10½	.10	.10¼	.10	.10¼	.097⅜	.....	.1 95	.10¼	.09¾	.10⅜	16,000

*Official quotations Colo. Spr'gs B'rd of Trade & Mg. Exch. Total shares sold: Listed 3,931,544. Sales for the week ending November 23d at the New Consolidated Exchange aggregated 4,612,485 shares.

SAN FRANCISCO, CAL.*

Name of Company.	Location.	Par. value.	Nov 23.	Nov.25.	Nov.26.	Nov.27.	‡ Nov.28.	Nov.29.
Alta	Nev.	100	.12	.15	.20	.19	.....	.....
Belcher	"	100	.30	.32	.32	.28	.....	.....
Best & Belcher	"	100	.64	.70	.78	.64	.....	.61
Bodie Consolidated	Cal.	100	.33	.32	. 3	.32	.....	34
Bulwer	"	100	.06	.05	.06	.06	.....	.10
Choliar	Nev.	100	.28	.28	.29	.27	.....	.28
Con. California & Virginia	"	100	2.25	2.35	2.25	2.25	.....	2.20
Crown Point	"	100	.28	.28	.32	.29	.....	.....
Gould & Curry	"	100	.3	.35	.37	.32	.....	.31
Hale & Norcross	"	100	1.20	1.30	1.25	1.15	.....	1.15
Mexican	"	100	.42	.45	.49	.44	.....	.40
Mono	Cal.	100	.10	.10	.1	.1	.....	.10
Ophir	Nev.	100	1.	1.20	.....	1.1	.....	1.15
Potosi	"	100	. 1	.60	.69	.61	.....	.....
Savage	"	100	. 1	.43	.49	.44	.....	.42
Sierra Nevada	"	100	.6	.68	.74	.65	.....	.63
Union Consolidated	"	100	.52	.57	.62	.55	.....	.53
Utah	"	100	.4	.6	.07	.06	.....	.....
Yellow Jacket	"	100	.24	25	.24	.25	.....	24

* Official telegraphic quotations San Francisco Stock Exchange. ‡ Holiday.

BALTIMORE, MD.* Week ending Nov. 27.

Name of Company.	Location.	Par value.	Bid.	Ask.	Name of Company.	Location.	Par value	Bid.	Ask.
Balt. Mg. & Sm.Co	N. C...	5	....	.....	Howard C'l & Coke	Md....	5	....	.....
Conrad Hill	"	10	.....	.....	Lake Chrome	"	5	.....	.....
Con. Coal	Md....	100	33	36	Ore Knob	"	10	....	.....
George's Cr'k Coal	" ..	100	108	112	Silver Valley	N. C...	5	....	20

* Official quotations Baltimore Stock Exchange.

NEW YORK.*

Name of Company.	Location.	Par val.	Nov. 23. H.	Nov. 23. L.	Nov. 25. H.	Nov. 25. L.	Nov. 26. H.	Nov. 26. L.	Nov. 27. H.	Nov. 27. L.	Nov. 28 † H.	Nov. 28 † L.	Nov. 29. H.	Nov. 29. L.	Sales
Adams	Colo..	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alice	Mont.	25	.....	.....	.....	.....	.40	.35	.....	.....	.....	.....	.....	.....	700
Argentum Jun.	Colo..	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
American Flag	" ..	1	.....	.....	.05	.04	.....	.....	.....	.....	.....	.....	.05	.....	1,650
Barcelona	Nev...	5	.....	.....	.....	.....	.05	.....	.0	.....	.....	.....	.05	.....	1,100
Bodie	Cal.	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Belcher	Nev..	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Best & Belcher	Colo..	100	.52	.....	.....	.....	.70	.....	.....	.....	.....	.....	.....	.....	150
Breece	"	25	.....	.....	.....	.....	.....	.....	.25	.20	.....	.....	.....	.....	2,500
Brunswick	Cal.	2	.....	.....	.12	.....	.12	.....	.....	.....	.....	.....	.....	.....	500
Castle Creek	Idaho	1	.....	.....	.....	.....	.....	.....	.02	.....	.....	.....	.....	.....	200
Chrysolite	Colo ..	50	.....	.....	.....	.....	.25	.....	.3	.....	.....	.....	.....	.....	300
Comstock T	Nev...	100	.08	..	.08	..	.08	..	.18	....	..	..	..	..	2,550
do. bonds	"	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Con. Imperial	"	100	.04	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 0
Con. Cal. & Va	"	100	2 30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Crown Point	"	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
El Cristo	R. of C	2	.....	.....	.....	.....	.09	.08	.07	.....	.....	.....	.....	.....	000
Enterprise	Colo	5	.....	.....	.....	.....	.65	.50	.60	.....	.....	.....	.....	.....	16,200
Gould & Curry	Nev..	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hale & Norcross	"	200	.....	.....	1.25	.....	.....	.....	1.30	.....	.....	.....	.....	.....	300
Homestake	S. Dak	1 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Horn Silver	Utah..	25	.....	.....	.....	.....	.....	.....	2.35	.....	.....	.....	2.35	.....	500
Iron Silver	Colo..	20	.....	.....	.20	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Isabella	"	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
K. & Pembroke	Ont...	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lacrosse	Colo..	10	.....	.....	.....	.....	.12	.....	.....	.....	.....	.....	.....	.....	900
Leadville Con	" ..	1	.....	.....	.1	.....	.5	..	.15	..	.....	.....	.....	.....	1,000
Little Chief	"	5	.....	.....	.....	.....	24	..	.24	.23	.....	.....	.24	..	950
Mexican	Nev ..	10	.43	.....	.....	.....	50	..	.50	.....	.....	.....	.....	.....	1,900
Mollie Gibson	Colo	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Moulton	Mont	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ontario	Utah.	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ophir	Nev ..	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pœnix Con	Ariz .	1	.....	.....	.05	.....	.12	06	.13	.10	.....	.....	.12	.11	79,600
Plymouth	Cal..	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potosi	Nev..	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Q'cksilver, com.	Cal...	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" pref.	"	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Savage	Nev...	100	.....	.....	.....	.....	.30	.....	.....	.....	.....	.....	.....	.....	200
Sierra Nevada	"	100	.....	.....	.....	.....	.55	.....	.....	.....	.....	.....	.....	.....	400
Small Hopes	Colo..	2	.....	.....	.....	.....	.90	.....	.....	.....	.....	.....	.....	.....	500
Standard Con	Cal..	100	.....	.....	1.90	.....	.75	.....	.....	.....	.....	.....	1.75	.....	700
Union Con	Nev...	100	.....	.....	.....	.....	.5	.....	.....	.....	.....	.....	.....	.....	100
Victor	Colo..	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.2	.....	500
Yellow Jacket	Nev...	100	.....	.....	.....	.....	30	.....	.38	.....	.....	.....	.....	.....	400

*Official quotations N. Y Stock and Con. Stock & Petroleum Exchanges. Total sales, 105,550.
† Holiday.

BOSTON, MASS.*

Name of Company.	Location.	Par val.	Nov. 22. H.	Nov. 22. L.	Nov. 23. H.	Nov. 23. L.	Nov. 2 . H.	Nov. 2 . L.	Nov. 25. H.	Nov. 25. L.	Nov. 27. H.	Nov. 27. L.	Nov. 28. † H.	Nov. 28. † L.	Sales.
Allouez	Mich.	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arnold	"	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Atlantic	"	25	16.50	15.75	.....	.....	.....	.....	.....	.....	17.00	16.00	.....	.....	423
Bonanza	"	10	.....	.....	.....	.....	.....	.....	.....	.....	.30	.....	.....	.....	500
Bost. & C. C	Colo..	1	.25	.....	.28	.25	.....	.....	.25	.....	.25	.....	.....	.....	2,200
Bost. & Mont.	Mont.	25	67.75	66.25	67.25	66 25	67.50	66 .25	69.88	67.25	72 00	69.50	.....	.....	30,527
Butte & Bost	"	25	15.25	14 75	15.00	..	15.25	14 .63	15.38	15.0	16.25	16.00	.....	.....	3,020
Cal. & Hecla	Mich.	25	300	.....	3.0	.....	300	.....	.....	.....	295	.....	.....	.....	28
Catalpa (Silver)	Colo.	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Centennial	Mich..	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dominion Coal	N. S.	100	13.50	13.2	.....	.....	13.50	13.25	13.50	.....	.....	.....	.....	.....	280
do. pref.	"	100	93.00	.....	93 00	.....	93.50	94.2	93.5	93 25	.....	.....	.....	.....	170
Franklin	Mich.	25	.....	.....	.....	.....	12.00	11 .0	11.75	11.00	11.50	.....	.....	.....	250
Illinois Steel	Ill.	100	.....	.....	76.75	76 50	.....	.....	76.00	.....	77.00	.....	.....	.....	108
Gold Coin	Colo..	1	1.2	.....	.....	.....	1.25	.....	1.25	1.2	1.15	.....	.....	.....	1,165
Kearsarge	Mich.	25	15.00	.....	15.00	.....	.....	.....	.....	.....	16.50	16.00	.....	.....	515
Lake Sup. Iron.	"	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Merced	Cal.	15	27.00	25.0	28.5	.....	29.00	.....	28.00	27.00	28.00	.....	.....	.....	490
Minnesota (Ir.)	Minn.	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Napa	Cal..	4	.....	.....	4.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
National	Mich.	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Osceola	"	25	25.00	.....	25.00	.....	26.00	25.00	25.50	.....	24.00	.....	.....	.....	443
Pontiac	"	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quincy	"	25	120	.....	.....	.....	119	.....	120	.....	.....	.....	.....	.....	111
do. scrip	"	.....	69.00	.....	.....	.....	56.0	.....	.....	.....	.....	.....	.....	.....	30
Santa Rosa	Cal..	10	.....	.....	.....	.....	.....	.....	1.00	.....	.....	.....	.....	.....	200
San. Ysabel G.	"	5	9.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	110
Tamarack	Mich	25	136	135	135	.....	135	.....	136	.....	.....	.....	.....	.....	165
do. scrip	"	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do. Jr.	"	25	.....	.....	14.50	.....	14.75	.....	.....	.....	15.0	14.50	.....	.....	300
Tecumseh	"	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Westlugh E.&M	Pa.	50	.....	.....	.....	.....	.....	.....	34.50	...	34.25	.....	.....	.....	210
do. pref.	"	50	.....	.....	.....	.....	.....	.....	55.0	54.50	54.75	.....	.....	.....	156
Wolverine	Mich.

DENVER, COLO.* Week ending Nov. 23.

Name of Company.	Location.	Par value.	Opening	Highest.	Lowest.	Closing. Bid.	Closing. Ask.	Sales.
Addie C	Cripple Creek, Colo.	$1	.01	.01½	.01⅞	.0105	.011	41,200
Agate	" " "	1	.01¼	.01½	.01⅜	.01⅜	.01⅜	289,500
Alamo	" " "	1	.....	.06¾	.06½	.05½	.....	26,500
Amity	" " "	1	..	.004	.001	.004	.004¼	34,000
Anaconda	" " "	5	.58	.....	.....	.60¾	.65	.....
Aola	" " "	1	.03½	.04⅛	.03½	.03½	.03¾	415,000
Argentum-Juniata	Aspen, "	2	.43	.47	.40	.42¾	...	3,000
Bangkok	Leadville, "	1	.08	.10	.08½	.08	.08¾	16,100
Bankers	Cripple Creek, "	1	.18¾	.19¾	.18½	.18½	.19¼	5,700
Big Six	" " "	1	.06	.....	.....	.06¼	.07	.....
Bob Lee	" " "	1	.02¼	.02⅞	.02¼	.02½	.02¾	190,000
Boston-Idaho	Leadville, "	1	.....	.21	.21	.....	.22	1,000
Cannon Hall	Cripple Creek, "	1	.01⅛	.01¼	.00⅝	.00⅝	.01	100,000
C. K. & N.	" " "	1	.02	.02⅜	.01⅞	.01⅜	.01⅞	203,200
Colo. City & Manitou	Leadville, "	1	.03⅜	.06	.05⅜	.05½	.05¾	74,000
Creede & Cripple Creek	Cripple Creek, "	1	.05	.06⅜	.05¼	.05½	.06	5,000
Cripple Creek Con	" " "	1	.18	.19	.19	.9	.20	12,500
Eclipse	" " "	1	.01¼	.01½	.0135	.01⅝	.01⅝	157,400
Eureka	" " "	1	.01½	.01⅝	.01⅛	.01⅝	.01¾	126,000
Fanny Rawlings	Leadville, "	1	.....	.....	.....	.....	.....	.....
Forepaugh	Cripple Creek, "	1	.....	.....	.....	.....	.....	.....
Franklin	" " "	1	.....	.....	.....	.....	.....	.....
Garfield Grouse	" " "	1	.05½	.06¼	.04⅞	.06⅛	.06¼	198,300
Gold & Globe	" " "	1	.21	.23	.23	.22	.23	500
Gold Standard	" " "	1	.11	.14	.11	.10	.11	15,000
Henrietta	" " "	1	.013⅛	.015	.013⅛	.014¼	.0 1⅛	803,000
Isabella	" " "	1	33½	42	.31⅛	.41½	.42	36,100
Jack Pot	" " "	1	.07¼	.09½	.08	.09⅜	.09⅞	15,500
Justice	" " "	1	.07½	.07	.06¾	.06⅝	.06⅞	27,700
Keystone	" " "	1	.07	.08½	.06¾	.07½	.09	6,500
Ladessa	" " "	1	.02¼	.02¾	.02⅛	.02	.02⅜	13,500
Mineral Rock	" " "	1	.....	.....	.....	.08	.....	.....
Mollie Gibson	Aspen, "	5	.36	.....	.40½	.40	.45	1,200
Mt. Rosa	Cripple Creek, "	1	.12	.15	.14	.15	.....	2,000
New Zealand	" " "	1	.18	.18	.07¾	.08	.09	3,500
Nugget	" " "	1	.....	.....	.....	.13	.....	.....
Oro Grande	" " "	1	.....	.....	.....	.....	.....	.....
People's	" " "	1	.05	.06	.06	.06	.06¾	1,000
Pharmacist	" " "	1	.16¾	.16	.13½	.13	.14	80,000
Portland	" " "	1	.....	2.02	2.02	2.01	2.20	5.0
Reno	" " "	1	.04⅝	.05⅛	.04⅞	.04⅜	.04⅞	37,500
Sacramento	" " "	1	.05½	.06¼	.05	.6¼	.07	1,000
Santa Fe	" " "	1	.01⅝	.01¾	.01½	. 1⅝	.01⅝	27,500
Smuggler	Aspen, "	1	.....	.....	.....	.....	.....	.....
Specimen	Cripple Creek, "	1	.....	.....	.....	.....	.....	.....
Star of the West	" " "	1	.02⅛	.02¼	.02⅛	.02⅛	.02¼	40,500
Summit	" " "	1	.....	.....	.....	.....	.....	.....
Tenderfoot	" " "	1	.03½	.03¾	.03½	.03	.03	1,500
Union Gold	" " "	1	.....	.22¾	.22½	.21	.24	2,000
Union Leasing	" " "	1	.33	.....	.....	.....	.34	.....
Virginia M. Con	" " "	1	.03½	.03¾	.03¾	.03	.03¾	1,800
Wheel of Fortune	" " "	1	.01	.01½	.01	. 1	.010½	250,700
Work	" " "	1	.10	.10¾	.09¾	.09¼	...	4,500

*Official quotations Colorado Mining Stock Exchange. Sales: Listed, 3,803,440; unlisted, 2,171,750; total, 5,974,140.

PHILADELPHIA, PA.*

Name of Company.	L'cation.	Par Val'e	Nov. 21. H.	Nov. 21. L	Nov. 22. H.	Nov. 22. L.	Nov. 23. H.	Nov. 23. L.	Nov. 25. H.	Nov. 25. L.	Nov. 26. H.	Nov. 26. L.	Nov. 27. H.	Nov. 27. L.	Sales
Bethlehem Ir.	Pa.	....	70	.....	70	.....	70	.....	70	.....	70	.....	.....	.....	.....
Bloom. C. & C.	"	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cambria Iron	"	50	49⅝	.....	49	.....	.....	.....	.....	.....	48⅝	.....	.....	.....	18
" Receipts	"	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cent. Coal & C.	"	100	..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
C., O. & Gif.Vt. Tst Ctfs.	I.T.	50	.....	.....	14	.....	.....	.....	14½	.....	.....	.....	.....	.....	410
Fl. Top C.L.As.	W.V.	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" pref.	"	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hunt & Br.Top.	Pa.	50	31	.....	31	.....	31	.....	31	.....	31	.....	.....	.....	.....
" pref.	"	50	5 ⅛	53	53½	53	53½	53	53⅜	.....	53⅜	53	.....	.....	28
Hutchinson C.	"	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" pref.	"	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lehigh C. & N.	"	50	46½	46¼	46¼	46	46½	46	46¾	46	47	46	.....	.....	58
Lehigh Valley	"	50	41	40	41	40	40	39½	40	39⅞	40¼	39⅞	.....	.....	758
Little Sch'ykill	"	50	64⅛	.....	64½	..	64½	.....	69¼	.....	64½	.....	.....	.....	.....
Penn. Gas Coal	"	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Penna. R. R.	"	50	53⅝	53½	5 ⅝	53⅛	53½	53⅜	53⅝	53⅜	53¾	53⅜	.....	.....	781
Penna. Salt	"	50	.....	.....	.....	.....	.....	.....	.....	.....	101	.....	.....	.....	5
Penna. Steel	"	....	.....	.....	.....	.....	.....	.....	.....	.....	45	.....	.....	.....	.....
" pref	"	....	.....	75	.....	.....	.....	.....	.....	.....	75	.....	.....	.....	10
Westmorel'd C	"	50	50	.....	50	.....	50	.....	51	.....	50	.....	.....	.....	.....
Wyo. Valley C.	"	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Official quotations Philadelphia Stock Exchange. Total sales, 2,068.

SALT LAKE CITY, UTAH.* Week ending Nov. 22.

Name of Company.†	Par value.	Bid.	Asked.	Actual selling price.	Name of Company.†	Par value	Bid.	Asked.	Actual selling price.
Ajax	$10	$0.35	$0.50	$0.50	Daly West	20	$6.30	$6.75	.....
Alliance	1	1.30	1.50	.....	Horn Silver	25	2.10	2.35	.....
Amer. Nat. Gas	10	.10	.20	.15	Mammoth	25	1.10	1.15	.....
Anchor	20	2.65	3.00	.....	Mercur	25	6.25	7.00	.....
Bogan	1	.15	.40	.25	Morgan	125	.50	.75	.65
Bullion Beck & C.	10	6.50	7.50	.....	Ontario	100	9.00	10.00	9.00
Cane Springs	5	.....	.85	.....	Rover	10	1.15	1.25	1.25
Centen'l Eureka	50	56.50	60.00	.....	Silver King	20	14.25	14.50	.....
Cleveland Con	1	.....	.60	.....	Sunshine	10	3.40	3.70	.....
Comstock	25	.40	.75	.....	Tetro	1	.....	.25	.10
Dalton	5	.15	.18¾	.....	Utah	1	1.00	1.25	1.10
Daly	20	6.35	6.75	.....	Utah Lime	10	3.50	4.25	4.00

* Special Report of James A. Pollock. † All the companies are located in Utah.

ASPEN, COLO.* Week ending Nov. 15.

Name of Company.	Location.	Par value.	Bid.	Asked.	Sales.	Price.
Alta Argent	Aspen, Colo.	$1.00	$0.07½	$0.08	33,000	$0.08
Argentum-Juniata	" "	2.00	.48	.49	21,000	.49
Aspen Contact	" "	5.00	.20	.23	1,000	.23
Aspen Deep Mining	" "	1.00	.07	.07½	40,000	.07
Best Friend	" "	1.00	.04	.04½	700	.04½
Bi-Metallic	" "	1.00	.01	.01⅛	100	.01½
Bushwhacker	" "	1.00	.04½	.05	2,000	.05
Caverhill Consolidated	" "	1.00	.20	.20	9,000	.20
Della S	" "	5.00	.55	.60	4,000	.60
Gold Valley Placer	" "	1.00	.....	.....	.....	.....
Mineral Farm Consolidated	" "	1.00	.06	.06¾	7,000	.06¼
Mollie Gibson	" "	5.00	.41	.42	1,000	.42
Old Colony (Gold)	Taylor River, "	1.00	2.00	2.00	1,000	2.00
Sheep Mt. T. & M	Crystal, "	1.00	.....	.....	.....	.....
Smuggler	Aspen, "	1.00	1.00	1.25	300	1 25

* Special Report of Arkell, MacMillan & Stewart. Total sales, 120,100.

HELENA MONT.* Week ending Nov. 15.

Name of Company.	Location.	Company's office	Par value.	Bid.	Asked	Shares sold.	Price	Date.
Am. Dev. & M. Co.	Silv. Bow Co, Mont.	Butte, Mont.	$1	$1.50	$2.00	500	$2.00	Nov.
Bald Butte	L. & Cl'ke " "	Helena "	1	2.75	3.75	100	3.25	"
Benton Group	Meagher " "	W. Sph. S. "	5	.15	.25	500	.15	"
Combination	" " "	" "	10	.50	.55	300	.50	"
Hel'a & Frisco	Shoshone " Id.	Helena "	5	1.50	2.50	.....	.....	.....
Iron Mountain	Missoula " "	" "	10	.55	.60	3,250	.57½	Nov. 8-15
Merrill G.	Jefferson " "	Butte "	1	.45	.50	.....	.....	.....
Ontario	DeerLodge "	Helena "	1	.....	1.00	.....	.....	.....
Plegan	L. & Cl'ke "	M'tryville, "	5	.10	.20	.....	.....	.....
Royal Gold	DeerLodge "	D'r Lodge, "	5	.....	1.00	.....	.....	.....

* Special Report of Samuel K. Davis.

DULUTH, MINN.* Week ending Nov. 23.

Name of Company	Location.	Company's Office.	Par value.	Bid.	Ask.	Price.
Adams Iron	St. Louis Co., Minn	Duluth, Minn	$100	$5.00	.....	.....
Biwabik Mt. Iron	" " "	" "	100	21.00	$22.50	.....
Lake Superior Con	" " "	" "	100	16.00	18.00	$16.50
Mesabi Chief	" " "	" "	100	1.75	2.00	.. ..
Minnesota Iron	" " "	New York City.	100	70.00	72.50	....
Mountain Iron	" " "	Duluth, Minn.	100	62.00	68.00	66.00

* Official quotations Duluth Board of Trade.

LONDON. Week ending Nov. 9.

Name of Company.	Country	Product.	Capital stock.	Par value.	Last dividend. Amt.	Last dividend. Date.	Quotations. Buyers	Quotations. Sellers.
			£ s. d.	s.d.			£ s. d.	£ s.d.
AMERICANS:								
Alaska-Mexican	Alaska	Gold	£160,000	1 0 0	0 7.2	Oct., 1895	2 0 0	2 5 0
Alaska Treadwell	"	"	1,000,000	5 0 0	1 6	" "	5 15 0	6 0 0
De Lamar	Idaho	Gold & silver	500,000	1 0 0	1 0	" "	1 0 0	1 1 3
Elkhorn	Montana	Silver	200,000	1 0 0	0 3	July "	4 6	5 0
Harquahala	Arizona	Gold	300,000	1 0 0	0 6	Oct. 1894	6 0	6 6
Holcomb Valley	California	"	140,400	5 0	..	.. ..	9	1 3
Jay Hawk	Montana	"	285,000	1 0 0	0 6	Dec., 1892	1 0	1 6
Montana	"	Gold & silver	660,000	1 0 0	0 3	Oct., 1895	6 9	7 3
New Guston	Colorado.	Silver.	110,000	1 0 0	1 0	" 1892	10 0	12 6
Palmarejo	Mexico	Gold & silver	800,000	1 0 0	.....	.....	1 9	2 3
Plumas-Eureka	Colorado.	Gold	281,250	2 0 0	0 9	Oct., 1895	8 9	11 3
Poorman	Idaho.	Gold & silver	230,000	5 0	.....	.....	3 0	3 3
Richmond	Nevada.	G'ld, sil. & l'd	270,000	5 0 0	1 0	Nov., 1894	15 0	1 0 0
Sierra Buttes	California	Gold	245,000	2 0 0	0 6	Oct., 1895	8 9	9 3
Springdale	Colorado.	"	240,000	4 0	0 2	Sept., 1894	1 6	1 9
SOUTH AMERICANS:								
Colomb. Hydraulic	Colombia	Gold	75,000	1 0 0	1 0	July, 1895	8 9	11 3
Frontino & Bolivia	"	"	140,000	1 0 0	0 6	Oct. "	1 2 6	1 5 0
Tolima, A shares	"	Silver	70,000	5 0 0	10 0	July "	7 10 0	8 0 0
" B "	"	"	30,000	5 0 0	10 0	" "	5 15 0	6 5 0
COPPER STOCKS:								
Anaconda	Montana	Cop. & Sil.	6,000,000	5 0 0	.....	.....	7 0 0	7 5 0
Cape Copper	So. Africa	Copper	600,000	2 0 0	1 3	June, "	2 5 0	2 7 6
" " pref	"	"	150,000	2 0 0	1 3	" "	2 0 0	2 5 0
Copiapo	Chile	"	200,000	2 0 0	1 6	May "	1 15 0	1 17 6
Rio Tinto	Spain	"	3,250,000	10 0 0	10 0	Nov. "	15 2 6	15 5 0
Tharsis	"	Sulpr & cop'r	1,250,000	4 0 0	4 0	April "	5 0 0	5 5 0
AUSTRALIANS.								
Bayley's Reward	Coolg'rdie	Gold	480,000	1 0 0	4 0	Dec., 1894	5 0	6 0
Broken Hill Prop'r.	N. S. Wales	Silver	384,000	8 0	2 0	Oct., 1895	2 1 3	2 2 6
Mt. Morgan Gold	Qu'ns'and	Gold	875,000	17 6	1 0	" "	2 15 0	3 0 0
SOUTH AFRICANS:								
British S. Africa Co	So. Africa	Lands & Ex.	2,000,000	1 0 0	.....	July, 1895	4 15 0	4 17 6
City & Suburban	Transvaal	Gold	85,000	4 0 0	10 0	June, 1895	4 10 0	4 15 0
Crown Reef	"	"	120,000	1 0 0	5 0	July, "	10 0 0	10 10 0
De Beers Con	"	Diamonds	3,990,000	5 0 0	12 6	" "	24 17 6	25 2 6
Ferreira	"	"	90,000	1 0 0	13 0	" "	16 10 0	17 10 0
Geldenhuis Estate	"	"	200,500	1 0 0	6 0	" "	4 15 0	5 0 0
Jagersfontein	"	"	1,000,000	10 0 0	10 0	" 1894	7 12 6	7 17 6
Langlaagte Estate	"	Gold	470,000	1 0 0	5 0	" 1895	4 12 6	4 17 6
New Primrose	"	"	278,750	1 0 0	5 0	" "	5 2 6	5 7 6
Robinson	"	"	2,750,000	5 0 0	6 0	June "	9 0 0	9 10 0
Simmer & Jack	"	"	250,000	1 0 0	2 0	Aug. "	23 10 0	24 10 0

PARIS. Week ending Nov. 15.

Name of Company.	Country.	Product.	Capital Stock.	Par value.	Divs. last year.	Prices. Op'ning.	Prices. Closing.
			Francs.	Fr.	Fr	Fr.	Fr.
Acieries de Creusot	France	Steel mfrs	27,000,000	2,000	100.00	2,000.00	2,002.50
" " Firminy	" " "	" " "	3,000,000	500	85.00	1,630.00	1,625.00
" " Fives-Lille	" "	" " "	12,000,000	500	35.00	660.00	635.00
" " la Marine	" "	" " "	20,000,000	500	30.00	865.00	865.00
" " Longwy	" "	" "	.....	500	35.00	610.00	6 0.00
" " l'Horme	" "	" "	.....	500	.....	25.00	25.00
Aguas Tenidas	Spain	Iron pyrites	10,000,000	500	40.00	180.00	180 00
Anzin	France	Coal	.....	.....	200.30	4,200.00	4,220.00
Boleo	Lower Cal.	Copper	.....	500	...	1,275.00	1,260.00
Bruay	France	Coal	3,0 0,000	400	600.00	17,950.00	18,050.00
Callao	Venezuela.	Gold	3:,200,000	125	...	11.00	11.00
Cape Copper	S. Africa	Copper	.....	50	1.50	55.00	55.00
Champ d'Or	"	Gold	.....	25	...	57.50	62.50
Courrieres	France	Coal	6 0,000	300	150.00	4,15 .00	4,20.00
De Beers Consolidated	S. Africa	Diamonds	98,750,000	125	15.62	685.00	656.25
Dombrowa	Russia	Coal	.....	500	...	600.00	625.00
Dynamite Centrale	France	Explosives	.....	500	25.00	62 .00	625.00
Huanchaca	Bolivia	Silver	.....	125	5.00	105.00	86.25
Kebao	Tonquin	Coal	.....	500	...	240.00	245.00
Langlaagte Estate	S. Africa	Gold	11,750,000	25	11.25	14 .00	12 .25
Laurium	Greece	Zinc & lead	16,300,000	500	40.00	600.00	585.00
Malfidano	Italy	Zinc	12,500,000	500	52.50	930.00	916.00
Metaux, Cie. Fran. de	France	Metal d'lers.	25,000,300	500	37.50	365.00	365.00
Mokta-el-Hadid	Algeria	Iron	18,312,500	500	40.00	755.00	740.00
Nickel	N. Caled'nia	Nickel	12,720,000	500	30.00	120.00	122.00
Penarroya	Spain	Coal, etc.	.....	500	52.50	1,170.00	1,175.00
Rebecca	Colo'do, U.S.	Gold	.....	.....	.....	26.50	26.00
Rio Tinto	Spain	Copper	81,250,000	250	8.00	440.00	431.25
Robinson	S. Africa	Gold	.....	125	12.50	253.75	258.75
Saint Elie	Fr. Guiana	"	4,000,000	25	...	24.50	24.50
Salines de l'Est	France	Salt	.....	500	27.00	310.00	295.00
Tharsis	Spain	Copper	.....	50	6.25	120.00	122.00
Vielle Montagne	Belgium	Zinc	9,000,000	80	30.00	452.50	458.00

MEXICO. Week ending Nov. 22.

Name of Company.	State.	No. of shares.	Last dividend.	Last assessment.	Prices. Opening.	Prices. Closing.
Amistad y Concordia	Hidalgo	9,600	$0.77	.....	$38	$35
Angustias	Guanajuato	2,400	25.00	.....	1,275	1,260
Arevalo	Hidalgo	.....	10.00	.....	405	400
Asturiana y Anexas	Zacatecas	2,500	10.00	.....	380	440
Bartolome de Medina	Hidalgo	2,000	3.00	.....	300	300
Carmen	"	1,100	19.08	.....	800	800
Castellana	Tepic	2,448	3 00	.....	200	200
Cerro Colorado	Chihuahua	15,000	.....	$1.00	15	15
Cinco Senores	Guanajuato	2,000	30.00	.....	1,300	1,240
Concepcion y Anexas	S. Luis Potosi	2,700	.....	.....	280	280
El Oro	Guanajuato	500	.....	.....	100	100
Guadalupe	"	10,000	2.00	.....	240	235
Luz de Maravillas	Hidalgo	1,100	.....	.....	350	380
Pabellon	"	1,000	25 89	.....	200	200
Purisima de los Com.	Zacatecas	2,400	.....	.....	50	70
Real del Monte	Hidalgo	2,554	20.00	.....	1,460	1,460
Rosario y Anexas	Durango	4,800	.....	.....	100	80
San Francisco	Hidalgo	2,000	6.00	.....	500	500
S. Ped. Chalchihuites	"	1,000	2.00	.....	205	210
San Rafael y An	"	1,200	40.00	.....	1,950	1,900
do. free stock	"	1,200	16.00	.....	800	800
Sta. Maria de la Paz	S. Luis Potosi	2,400	.....	.....	630	625
Soledad	Hidalgo	960	30.00	.....	900	880
Sorpresa	"	960	5.00	.....	600	600
Trinidad	Guanajuato	2,000	8.00	.....	260	280
Tlauzingo	Puebla	2,400	.....	.....	40	30
Union	Hidalgo	2,000	7.00	.....	615	600
Zaragoza	"	1,100	.....	.....	30	30
Zomelahuacan (gold)	Vera Cruz	5,000	.....	.....	100	100
Zona Min. de Pozos	Guanajuato	2,400	.....	1.50	90	100

NOTE.—In most Mexican mining companies the shares have no fixed par value. The capital is formed of a certain number of shares, the total value not being named. Prices are in Mexican dollars.

VALPARAISO, CHILE.* Week ending Oct. 12.

Name of Company.	Capital.	Share value. N'minal.	Share value. Paid up.	Last dividend.	Prices. Bid.	Prices. Asked.	Prices. Last sale
Arturo Prat	$3,300,000	$100	$100	0½ per cent.	$4 ½	$44	$44
Caracoles	315,000	100	100	5 "	.....	50	.....
Descub. de Huantajaya	1,000,000	100	100	2 "	25	35	25
Huanchaca de Bolivia	800,000	100	100	4 "	60	62	62
Oruro	800,000	1,000	1,000	.....	490	5 0	490
S. Agustin de Huantajaya	1,500,000	100	100	2½ per cent.	30	35	52½
Todos Santos	2,000,000	100	100	0½ "	20	21	20
Nitrate Cos:							
Agua Santa	5,000,000	500	500	6 "	160	163	163
Antofogasta	2,000,000	200	200	10 "	140	170	184
Union	3,000,000	200	100	3 "	75	77	76

* Special Report of Jackson Bros. Values are in Chilean pesos or dollars.

SHANGHAI, CHINA.* Oct. 18.

Name of Company.	Country.	No. of shares.	Value. Par.	Value. Paid up.	Last dividend. Dat.	Last dividend. Amount.	Price.
Jelebu Mg. & Trad	China	45,000	$5	$5	Oct., 1894	$0.25	Taels 2.3
Punjom Mg. Co., Ltd.	"	58,850	4	3¾	.....	.....	" 4.3
do. pref	"	28,5 9	1	1	.....	.....	" 1.0
RaubA'lian G.Mg. Co.	"	200,000	£1	138. 10d.	Dec., 1893	10½d.	" 2.9
Sheridan Con.Mg. Co.	Colorado, U.S	20,000	Taels 100	Taels 100	.....	.....	" 2.5

* Special Report of J. P. Bissett & Co. The prices quoted are in Shanghai taels.

DIVIDEND-PAYING MINES.

	Name and Location of Company.		Capital Stock.	Shares. No.	Par val	Assessments Total Levied	Assessments Date and amount of last			Dividends. Total paid.	Dividends. Date & amount of last.		
1	Adams, s. L.	Colo.	$1,500,000	150,000	$10	*	.....	.....	.....	$693,000	Oct	5	04
2	Alaska-Treadwell, g.	Alaska	5,000,000	200,000	25	.....	.....	.....	.....	2,224,000	Apr.	1895	.37½
3	Alice, s.	Mont.	10,000,000	400,000	25	*	.....	.....	.....	975,000	Nov	91	.06¼
4	Amador, c.	Cal.	1,250,000	250,000	5	*	.....	.....	.....	31,250	Aug.	93	.12½
5	American, G.	Colo.	3,000,000	300,000	10	*	.....	.....	.....	225,000	Mar.	1892	.05
6	American Belle, s. & c.	Colo.	2,000,000	4 0,000	5	*	.....	.....	.....	50,000	Apr.	1891	.12½
7	American Nettie, s. & c.	Colo.		400,000			.....	.....	.....	175,000	Mar.	1892	.05
8	Argentum-Juniata.	Colo.	2,600,000	1,330,000	2		.....	.....	.....	156,000	Oct	1895	.03
9	Atlantic, c.	Mich.	4,000,000	8,000	25	280,000	April	1875	$1.00	60,000	Feb.	1891	1.00
10	Aravie, G.	Colo.	1,000,000	1,000,000	1	*	.....	.....	.....	20,000	Mar.	1892	.01
11	Aspen Mg. & S., s. L.	Colo.	2,000,000	200,000	10	*	.....	.....	.....	900,000	July.	1894	.10
12	Aurora, l.	Mich.	2,500,000	100,000	25		.....	.....	.....	650,000	Feb.	1893	2.00
13	Bad Boy, s.	Ont.	250,000	50,000	5	*	.....	.....	.....	37,500	Mar.	1890	.25
14	Bald Butte	Mont	250,000	250,000	1	*	.....	.....	.....	382,000	Jan.	1895	.05
15	Bangkok-C. Bell, c. & L.	Colo.	600,000	600,000	1		.....	.....	.....	98,510	Oct.	1895	.00½
16	Bates Hunter, s. & G.	Colo.	1,000,000	1,000,000	1		.....	.....	.....	67,500	Dec.	1891	.00½
17	Belden, F. E., m.	N. H.	500,000	100,000	5	*	.....	.....	.....	153,113	Oct.	1895	.04
18	Belle Isle, s.	Nev.	10,000,000	100,000	100	280,271	Sept	1893	.10	300,000	Dec.	1879	.25
19	Belcher, s. G.	Nev.	10,400,000	104,000	100	3,262,900	Nov.	1893	.20	15,397,200	Apr.	1876	1.00
20	Bellevue, Idaho, s. L.	Idaho	1,250,000	125,000	10	120,000	Dec.	1889	.25	200,000	Jan.	1890	.10
21	Best Friend	Colo.	1,000,000	1,000,000	1	*	.....	.....	.....	90,000	Feb.	1892	.01
22	Bi-Metallic, s. G.	Mont.	5,000,000	200,000	25		.....	.....	.....	1,630,000	June	1893	.10
23	Bodie Con., G. L.	Cal.	10,000,000	100,000	100	714,990	July	1893	.15	1,677,572	Dec.	1894	.25
24	Boston & Mont., G.	Mont.	2,500,000	250,000	10	*	.....	.....	.....	321,000	June	1895	.15
25	Boston & Mont., C. & S.	Mont	3,7 0,000	150,000	25	*	.....	.....	.....	3,075,000	Nov	1895	4 00
26	Brotherton, L.	Mich	2,000,000	80,000	25	*	.....	.....	.....	120,000	Mar.	1895	.50
27	Bulwer, G.	Cal.	10,000,000	100,000	10	155,000	July	1893	.15	190,000	Oct.	1892	.06½
28	Bunker Hill & S., L.	Idaho	5,000,000	500,000	10	*	.....	.....	.....	150,000	Oct.	1888	.06
29	Caledonia, G.	Dak.	10 000,000	100,000	100	505,000	May	1885	.15	192,000	Oct.	1890	.03½
30	Calumet & Hecla C.,	Mich.	4,500,000	100,000	25	1,200,000				43,850,000	Oct.	1895	5.00
31	Centen'l-Eureka, s. L.	Utah	1,500,000	80,000	50	30,000	Mar.	1888	1.00	1,380,000	Nov.	1895	1 00
32	Central, G.	Mich.	500,000	20,000	25	100,000	Oct.	1861	.65	1,920,000	Feb.	1891	1 00
33	Champion, G.	Cali	340,000	34,000	10	150,000				216,00	Aug.	1895	.10
34	Chrysolite, s. L.	Colo.	10,000,000	200,000	50	*	.....	.....	.....	1,850,000	Dec	1884	.25
35	Cœur D'Alene, s. L.	Idaho	5,000,000	500,000	10		.....	.....	.....	840,000	June	1893	.06
36	Colorado Central, s. L.	Colo.	2,700,000	275,000	10	*	.....	.....	.....	502,661	Apr.	893	.05
37	Commonwealth, s.	Nev.	10,000,000	100,000	100	200,000	Nov.	1893	.10	20,000	Nov.	1891	.20
38	Confidence, s. L.	Nev.	2,496,000	24,960	100	1,589,550	Aug.	1892	.50	277,680	Apr.	1886	1.00
39	Cons. Cal. & Va., s. G	Nev.	21,600,000	216,000	100	216,000	Dec.	1892	.50	3,954,800	Mar	1895	28
40	Contention, s.	Aris.	12,500,000	250,000	50					2,437,500	Aug.	1892	.20
41	Cook's Peak, s.	N. M.	2,000,000	200,000	10		.....	.....	.....	119,532	Nov	1892	.06
42	Cor. Queen Con., c.	Aris.	2,000,000	200,000	10		.....	.....	.....	1,910,000	June.	1895	.25
43	Coptis	Nev.	10,000,000	100,000	100		.....	.....	.....	68,000	Feb.	1895	.01
44	Cortez, s.	Nev.	1,500,000	300,000	5	*	.....	.....	.....	735,000	Feb.	1893	.15
45	Crescent, s. L., G.	Utah.	15,000,000	600,000	25	60,000	Oct	892	.10	238,000	Oct.	1888	.03
46	Crown Point, G. S.	Nev.	10,000,000	100,000	100	2,750,000	June	1893	.25	11,898,000	Jan.	1875	.00
47	Daly, s. L.	Utah.	3,000,000	150,000	20		.....	.....	.....	2,850,000	May.	1893	.25
48	+Deadwood-Terra, G.	Dak.	5,000,000	200,000	25	*	.....	.....	.....	1,140,000	Sept.	1892	.08
49	DeLamar, G. & S.	Idaho	2,000,000	400,000	5		.....	.....	.....	1,722,000	Oct.	1895	.24
50	Derbec B. Grav., G.	Nev.	10,000,000	100,000	100	100,000	Sept.	1892	.10	280,000	Mar	1891	.05
51	Dexter, G. & S.	Nev.	1,000,000	100,000	10		.....	.....	.....	245,000	July	1893	.25
52	Elkhorn, s.	Mont.	1,000,000	200,000	5	*	.....	.....	.....	1,324,989	May	1895	.12½
53	Elkton	Colo.	5 0,000	500,000	1		.....	.....	.....	90,000	Dec.	1894	.01
54	Enterprise, s.	Colo.	2,500,000	500,000	5	*	.....	.....	.....	850,000	June.	1893	.25
55	Eureka Con., s. L., G.	Nev.	1,000,000	50,000	2	550,000	June	1889	.50	5,112,500	Jan	1892	.25
56	Eureka Hill, G. & L.	Utah.	1,000,000	10,000	10	*	.....	.....	.....	1,500,000	Jan.	1891	.04
57	Evening Star, s. L.	Colo.	300,000	50,000	10	*	.....	.....	.....	1,437,500	Dec.	1889	.25
58	Father de Smet, G.	Dak.	10,000,000	100,000	100	200,000	Nov.	1878	1.00	1,125,000	Dec.	1885	.20
59	Franklin, c.	Mich.	1,000,000	40,000	25	320,000	June	1867	2.50	1,240,000	Jan.	1894	2.00
60	Glengarry	Mont.	1,000,000	100,000	10		.....	.....	.....	10,000	June.	1891	10
61	Gold & Globe, G.	Colo.	750,000	750,000	1		.....	.....	.....	9,375	Mar.	1895	00¼
62	Gould & Curry, s. G.	Nev.	10,800,000	108,000	100	4,688,400	Oct	1893	.10	3,826,800	Oct.	1870	10.00
63	Grand Prize, s.	Nev.	10,000,000	100,000	100	785,000	Jan.	1890	.30	495,000	Mar.	1884	.25
64	Granite Mountain, s.	Mont.	10,000,000	400,000	25		.....	.....	.....	12,120,000	July.	1892	.30
65	Great Western, L. Q.	Cal.	5,000,000	50,000	100	50,526		1889	.15	988,866	Nov	1891	.25
66	Hale & Norcross, G. & S.	Nev.	11,200,000	112,000	100	5,646,800	June	1892	.50	1,822,000	Aug	1888	.50
67	Hecla Con., s. G. L. C.	Mont.	1,500,000	30,000	50		.....	.....	.....	2,115,000	Aug.	1895	.50
68	Hel'a Mg. & Red. s. L. G.	Mont.	3,315,000	663,000	5		.....	.....	.....	197,970	July.	1888	.06
69	Helena & Frisco, s. L.	Idaho	2,500,000	500,000	5		.....	.....	.....	280,000	Feb.	892	.02
70	Helena & Victor.	Mont.	1,000,000	200,000	5		.....	.....	.....	80,000	May	1892	.05
71	¶ Holmes, s.	Nev.	10,000,000	100,000	100	345,000	Mar.	1890	.25	75,000	Apr.	1892	.25
72	Homestake, G.	Dak.	12,500,000	125,000	100	200,000	July.	1878	1.00	5,618,750	Oct.	1895	.25
73	Hope, s.	Mont.	1,000,000	100,000	10	*	.....	.....	.....	552,250	Jan.	1895	.10
74	Horn-Silver, s. L.	Utah.	10,000,000	400,000	25	*	.....	.....	.....	5,137,500	Apr.	1895	.12½
75	Idaho, G.	Cal.	310,000	3,100	100		.....	.....	.....	5,489,000	Sept.	1893	2.50
76	Illinois, s.	N. M.	100,000	100,000	1	*	.....	.....	.....	45,000	Apr.	1889	.20
77	Iron Mountain, s.	Mont.	5,000,000	500,000	10	*	.....	.....	.....	385,000	Aug.	1895	.02
78	Iron-Silver, s. L.	Colo.	10,000,000	500,000	20	*	.....	.....	.....	2,500,000	Apr.	1889	.20
79	Jackson, G. & S.	Nev.	5,000,000	50,000	100	247,500	Mar.	1893	.20	85,000	Feb.	1895	.04
80	Kearsarge, C.	Mich.	2,000,000	40,000	25	190,000	Oct.	1887	1.00	80,000	Jan.	1890	2.00
81	Kennedy	Cal.	10,000,000	100,000	100		.....	.....	.....	2,734,000	Aug.	1895	.48
82	Lake Superior, L.	Mich.	2,100,000	84,000		*	.....	.....	.....				
83	Leadville Con., s. L.	Colo.	4,000,000	400,000	10	*	.....	.....	.....	516,000	Feb.	1893	.03
84	Lexington, G. S.	Mont.	4,000,000	40,000	100	*	.....	.....	.....	652,200	July	1893	.90
85	Little Chief, s. L.	Colo.	10,000,000	200,000	50	*	.....	.....	.....	820,000	Dec.	1890	.05
86	Maid of Erin	Colo.	3,000,000	600,000	5		.....	.....	.....	708,900	Apr.	1893	.25
87	Mammoth, s. L. C.	Utah	10,000,000	400,000	250	110,000		1882	.25	1,040,000	Dec.	1891	.10
88	Maxfield	Utah.	3,000,000	300,000	10		.....	.....	.....	117,000	Apr.	1892	.03
89	Mayflower, D. gravel	Cal.	1,200,000	60,000	20		.....	.....	.....	242,000	Aug.	1895	.10
90	Minas Prietas, G. & S.	Mex.	1,000,000	100,000	10	*	.....	.....	.....	350,000	Dec.	1890	.50
91	Minnesota, C.	Mich.	1,000,000	40,000	25	420,000	April	1886	1.00	1,820,000	Mar.	1876	
92	Minnesota Iron, L.	Minn.	16,500,000	165,000	100		.....	.....	.....	2,745,000	Apr.	1893	1 50
93	Mollie Gibson, s.	Colo.	5 000,000	1,000,000	5	19 500	Jan.	1891	.01	4,080,000	Jan.	1895	.05
94	Monitor, G.	S. Dak	2,500,000	250,000	10		.....	.....	.....	45,000	Oct	1890	.03
95	Mono, G.	Cal.	5,000,000	50,000	100	797,500	Feb.	1893	.25	12,500	Mar	1886	.25
96	Montana, Lt., G. & S.	Mont.	3,300,000	660,000	5	*	.....	.....	.....	2,701,775	Jan.	1895	12½
97	Moose	Colo.	600,000	600,000	1		.....	.....	.....	72,000	Nov.	1894	.12
98	Morning Star, s. L.	Colo.	1,000,000	100,000	10		.....	.....	.....	1,025,000	Dec.	1891	.4
99	Morning Star Drift, G	Cal.	240,000	2,400	100		.....	.....	.....	446,300	Oct.	1895	7.0
100	Mountain, s. G.	Mont.	2,000,000	400,000	5	*	.....	.....	.....	460,000	July.	1894	.05
101	Mt. Diablo, s.	Nev.	5,000,000	50,000	100	187,500	June	1880	2.00	225,000	Nov	1898	.30
102	Mt. Rosa, G.	Colo.	1,00 ,000	1,000,000	1		.....	.....	.....	10,000	Jan.	1895	.10
103	Napa, Q.	Cal.	700,000	100,000	7		.....	.....	.....	740,000	Oct.	1895	.20
104	Navajo, G. & S.	Nev.	10,000,000	100,000	10	538,714	Sept.	1893	.10	226,111	Apr.	1889	.10
105	New Boston, s.	Colo.	550,000	110,000	5		.....	.....	.....	1,877,500	Apr.	1892	.75
106	North Banner Con.	Cal.	1,000,000	100,000	10		.....	.....	.....	20,000	July.	1891	.05
107	North Commonw'th	Nev.	10,000,000	100,000	10	90,000	Jan.	1893	.10	25,000	June	1891	.25
108	N. Hoover Hill, G. & S.	N. C.	800,000	120,000	2½	*	.....	.....	.....	30,000	Dec.	1886	.06½
109	North Belle Isle, s.	Nev.	10,000,000	100,000	100	518,075	April	1893	.10	230,000	May	1886	.50
110	North Star, G.	Cal.	1,000,000	100,000	10	20,000		1885	.02	450,000	June	1888	.50
111	Nugget, G.		1,000,000	1,000,000	1	*	.....	.....	.....	10,000	Jan.	1895	.00½
112	Omaha Cons., G.	Cal.	2,400,000	24,000	100		.....	.....	.....	97,440	July.	1894	.15
113	Ontario, s. L.	Utah	15,000,000	150,000	100		.....	.....	.....	13,175,000	Oct.	1892	.50
114	Ophir, G. & S.	Nev.	10,000,000	100,000	100	4,391,040	July	1893	.25	1,595,800	Jan	1880	1.00
115	Osceola, C.	Mich.	1,250,000	50,000	25	480,000	April	1876	1.60	1,947,500	June	1895	1.00
116	Pacific Coast, s.	Cal.	2,000,000	20,000	100		.....	.....	.....	422,500	July	1893	1.00
117	Parrot, C.	Mont.	2,300,000	23 ,000	10		.....	.....	.....	1,569,000	June	1893	.10
118	Pet o	Utah.	10,000,000	10,025	100		.....	.....	.....	7,500	July.	1891	.75
119	Pharmacist, G.	Cal.	1,200,000	1,200,000	1		.....	.....	.....	8,000	June.	1893	.01
120	Plumas Eureka, G.	Colo.	1 406,280	140,600	50		.....	.....	.....	2,696,295	Oct.	1893	.18
121	Plymouth Con., G.	Cal.	5,000,000	100,000	50	*	.....	.....	.....	2,280,000	Feb.	1888	.40
122	Poorman, G. & S.	Idaho	375,000	300,000	1 25	*	.....	.....	.....	68,260	Sept.	1895	.15
123	Portland, G.	Colo.	3,000,000	3,000,000	1	*	.....	.....	.....	388,500	Oct.	1895	.62
124	Quicksilver, pref., Q.	Cal.	4,300,000	43,000	0		.....	.....	.....	1,823,911	June	1891	1.25
125	" com., Q.	Cal.	5,700,000	57,000	100		.....	.....	.....	645,867	July.	1882	.40
126	Quincy, C.	Mich.	1,250,000	50,000	105	200,000	Dec.	1862		7,69 ,000	Aug.	1895	4.00
127	Red Cloud.	Idaho	1,000,000	200,000	25		.....	.....	.....	153,000	Dec.	1892	.10
128	Retriever, L.	S. Dak	1,250,000	250,000	5		.....	.....	.....	20,000	Aug.	1891	.03
129	Rialto, G.	Colo.	300,000	300,000	1	*	.....	.....	.....	50,250	Apr.	892	.01½
130	Richmond, s. L.	Nev.	1,350,000	54,000	5	*	.....	.....	.....	4,386,780	Sept	1893	.25
131	Rico-Aspen	Colo.	5,000,000	1,000,000	25		.....	.....	.....	325,000	Nov.	1894	.02½
132	Ridge, C.	Mich.	1,250,000	50,000	5	219,939	Mar.	1886	50	99,785	Feb.	1880	.50
133	Robinson Con., s. L.	Colo.	10,000,000	200,000	20	*	.....	.....	.....	585,000	Mar	1886	.05
134	Savage, s.	Nev.	11,200,000	112,000	50	6,966,000	June	1893	.25	4,460,000	June	1869	3.00
135	Sierra Buttes, G.	Cal.	2,225,000	122,500	10		.....	.....	.....	1,559,933	Oct.	1893	.12½
136	Sierra Nevada, s. G.	Nev.	10,000,000	100,000	10	6,521,910	Aug.	1893	.20	102,000	Jan.	1871	1.00
137	Silver Cord, s. L. G.	Colo.	5,000,000	500,000	100		.....	.....	.....	270,000	Apr.	1889	.10
138	Silver King, s.	Utah.	10,000,000	100,000	10	97,479	Aug.	1892	.25	1,380,000	N	v.	.25
139	Silver Mg. of L. V., s. L.	N. M.	500,000	500,000	10	*	.....	.....	.....	500,000	Dec.	1891	4.05
140	Small Hopes Con., s.	Colo.	5,000,000	250,000	0	*	.....	.....	.....	3,225,000	Oct.	1895	.10
141	Standard, G. & S.	Cal.	10,000,000	100,000	20	100,000	June	1890	.50	3,771,159	June.	1895	.10
142	Swansea, G. & S.	Colo.	600,000	60,000	10		.....	.....	.....	39,000	Sept.	1892	.10
143	Tamarack, C.	Mich.	1,250,000	50,000	15	520,000	April	1885	3.00	4,270,000	June.	1894	4.00
144	Trinity River Hydr., G.	Colo.	500,000	500,000	21	*	.....	.....	.....	37,500	Apr.	1894	.00½
145	Union	Colo.	1,250,000	1,250,000	1		.....	.....	.....	27,740	May.	1895	01
146	United Verde, C.	Aris.	3,000,000	300,000	0	*	.....	.....	.....	562,500	Dec	1893	25
147	Victor, G.	Colo.	1,000,000	200,000	15		.....	.....	.....	415,000	Oct.	1895	.10
148	Victor L. & M. Co., G.	Colo.	6,000,000	600,000	1		.....	.....	.....	6,000	June.	1895	.05
149	Wood Con., s.	Colo.	2,000,000	200,000	1		.....	.....	.....	30,000	Dec.	89	.05
150	Wood River, G.	Cal	60,000	30,000	2	22,500	May.	1891	.10	106,000	Aug.	1895	.10
151	Yankee Girl	Colo	1,800,000	360,000	5		.....	.....	.....	520,000	July	1891	.25
5	Yellow Jacket, G.	Nev.	12,000,000	120,000	100		.....	July.	1893	2,184,000	Aug.	1871	1.50

NON-DIVIDEND-PAYING MINES

	Name and Location of Company.		Capital Stock.	Shares. No.	Par	Assessments. Total levied	Assessments. Date and am't of last.		
1	Ajax, G. & L.	Utah.	$3,000,000	300,000	$10	$15,000	Mar.	1895	$20
2	Alliance, s. G.	Utah		100,000		120,000	Feb.	189	.10
3	Alloues, C.	Mich.	2,000,000	80,000	25	1,424,937	Oct.	1891	.10
4	Alpha Con., G. & S.	Nev.	3,000,000	30,000	100	209,000	Sept.	1892	.10
5	Alta, s.	Nev.	10,080,000	100,800	100	3,369,800	Jan.	1892	.06
6	American Flag, s.	Colo.	1,250,000	125,000	1	300,000	June	1887	
7	Anchor, s. L. G.	Utah.	3,000,000	150,000	5	560,000	July.	1893	.25
8	Barcelona, G.	Nev.	5,000,000	200,000	5	*	.....	.....	.....
9	Belmont, G.	Cal.	500,000	500,000	100	*	.....	.....	.....
10	Belmont, s.	Nev.	5,000,000	50,000	100	785,000	April	1886	.10
11	Best & Belcher, s. G.	Nev.	10,080,000	100,800	10	2,405,275	Aug.	1892	.25
12	Black Oak, G.	Cal.	3,000,000	300,000	100	*	.....	.....	.....
13	Brownlow, G.	Colo.	250,000	250,000	5	.....	.....	.....	.....
14	Brunswick, G.	Cal.	2,000,000	400,000	2	.....	.....	.....	.....
15	Bullion, s. G.	Nev.	10,000,000	100,000	100	2,890,000	Aug.	1892	.25
16	Butte & Boston, c. & s.	Mont.	5,000,000	200,000	10	.....	.....	.....	.....
17	Butte Queen, G. & S.	Cal.	1,000,000	100,000	1	6,000	Jan.	1892	
18	Calaveras, G.	Cal.	500,000	500,000	5	.....	.....	.....	.....
19	Calaveras Con., G.	Cal.	800,000	160,000	10	.....	.....	.....	.....
20	California, G.	Cal.	1,000,000	100,000	5	9,000	Mar.	1892	
21	California Con. L. Q.	Cal.	2,250,000	450,000	10	.....	.....	.....	.....
22	Challenge Con., G. & S.	Nev.	5,000,000	50,000	10	.....	.....	.....	.....
23	Chollar, s. G.	Nev.	11,200,000	112,000		2,212,000	May.	1895	.50
24	Colchis, s. G.	N. M.	500,000	150,000	5	.....	.....	.....	.....
25	Colorado, s.	Colo.	1,625,000	325,000	1	.....	.....	.....	.....
26	Comstock, s.	Utah.	1,250,000	250,000	100	.....	.....	.....	.....
27	Comstock Tun.	Nev.	10,000,000	100,000	100	25,000	Mar	1887	.10
28	Con. Imperial, G. & S.	Nev.	5,000,000	50,000	50	2,062,500	Jan.	1892	.25
29	Con. New York, G. & S.	Nev.	5,000,000	100,000	100	110,000	Mar.	1892	.10
30	Con. Pacific, G.	Cal.	6,000,000	60,000	100	198,000	June	1890	.10
31	Crescent, s. L.	Colo.	3,000,000	300,000	100	*	.....	.....	.....
32	Crocker, s.	Aris.	10,000,000	100,000	1	165,000	Aug.	1892	.05
33	Crowell, G.	N. C.	500,000	500,000	1	.....	.....	.....	.....
34	Dahlonega, G.	Ga.	250,000	250,000	10	*	.....	.....	.....
35	Decatur, s.	Colo.	1,500,000	300,000		.....	.....	.....	.....
36	Denver City s.	Colo	5,000,000	500,000	11	*	.....	.....	.....
37	Denver Gold, G.	Colo	800,000	40,000	5	.....	.....	.....	.....
38	Dickens-Custer, s.	Idaho	2,100,000	420,000	5	.....	.....	.....	.....
39	Durango, G.	Colo.	500,000	500,000	1	*	.....	.....	.....
40	El Dorado, G.	Cal.	1,000,000	250,000	4	*	.....	.....	.....
41	Emma, s.	Utah.	625,000	500,000	125	.....	.....	.....	.....
42	Emmons, s. L.	Colo.	2,000,000	2,000,000	1	.....	.....	.....	.....
43	Empire, s.	Utah	10,000,000	100,000	100	.....	.....	.....	.....
44	Eureka Tunnel, s. L.	Nev.	10,080,000	100,000	100	*	.....	.....	.....
45	Exchequer, s. G.	Nev.	10,000,000	100,000	100	940,000	Jan.	1892	.25
46	Found Treasure, G. & S.	Nev.	10,000,000	100,000	100	180,500	Jan.	1892	.50
47	Gogebic I. Syn., L.	Wis.	5,600,000	200,000	28	*	.....	.....	.....
48	Gold Cup, s.	Colo.	500,000	500,000	1	*	.....	.....	.....
49	Golden Era, s.	Mont.	1,000,000	200,000	10	*	.....	.....	.....
50	Gold Flat, G.	Cal	1,000,000	100,000	10	5,000	Mar.	1892	.05
51	Gold Rock, G.	Cal.	1,000,000	500,000	2	.....	.....	.....	.....
52	Golden FeatherCh., G.	Cal.	900,000	180,000	5	.....	.....	.....	.....
53	Goodyear G. & L.	Mont.	1,000,000	200,000	5	13,000	Feb.	1892	.01
54	Grand Duke, s.	Colo.	800,000	80,000	10	.....	.....	.....	.....
55	Gregory Con., G.	Mont.	3,000,000	300,000	10	.....	.....	.....	.....
56	Harlem M. & M. Co., G.	Cal.	1,000,000	200,000	5	.....	.....	.....	.....
57	Hartery Con., G.	Cal.	1,000,000	100,000	10	22,000	Oct.	1890	.05
58	Hartshorn, G. & L.	S. Dak	1,250,000	250,000	5	8 750	Sept.	1891	.00½
59	Head Cent. & Tr., s. G	Aris.	10,000,000	100,000	100	16,981	Mar.	1892	.02
60	Hector, G.	Cal.	1,500,000	300,000	5	45,000	Jan.	1889	.15
61	Himalaya, G. & L.	Utah.	1,800,000	80,000	10	12,800	Oct.	1892	.00½
62	Hollywood	Cal.	200,000	100,000	2	.....	.....	.....	.....
63	Huron, C.	Mich.	1,000,000	40,000	25	280,000	May	1887	3.00
64	Idaho, G. & S.	Idaho	1,250,000	250,000	5	.....	.....	.....	.....
65	Ingalls, G.	Colo.	100,000	20,000	5	.....	.....	.....	.....
66	Ironton, L.	Wis.	1,000,000	40,000	25	.....	.....	.....	.....
67	Iroquois, C.	Mich.	1,250,000	50,000	25	.....	.....	.....	.....
68	Kentuck Con.	Nev.	10,500,000	105,000	00	57,750	July	1892	.10
69	Julia Con., G. & S.	Nev.	11,000,000	110,000	100	1,463,000	Jan.	1889	.10
70	Justice, G. & S.	Colo.	500,000	500,000	1	*	.....	.....	.....
71	Lacrosse, G.	Colo.	1,000,000	100,000	10	*	.....	.....	.....
72	Little Josephine, s.	Colo.	250,000	50,000	5	.....	.....	.....	.....
73	Little Pittsburg, G. & S.	Utah.	4,000,000	400,000	10	4,000	Mar.	1892	
74	Lone Star Cons., G.	Cal.	500,000	500,000	1	10,000	April	1892	.05
75	Madeleine, G. & L.	Colo.	750,000	50,000	1	4,500	Feb.	1892	.05
76	Mammoth Gold, G.	Aris.	2,500,000	500,000	5	*	.....	.....	.....
77	Mayflower Gravel, G	Cal.	1,000,000	100,000	10	*	.....	.....	.....
78	Mexican, G. & S.	Nev.	10,000,000	100,000	100	2,917,560	Oct.	1892	.50
79	Michigan, G. & S.	Mich.	2,500,000	100,000